

# PHYSICAL FITNESS

THROUGH PHYSICAL EDUCATION  
FOR  
CALIFORNIA SECONDARY SCHOOL BOYS



CALIFORNIA STATE  
DEPARTMENT OF EDUCATION

SACRAMENTO, 1953

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*Prepared under the direction of*  
BUREAU OF HEALTH EDUCATION, PHYSICAL  
EDUCATION, AND RECREATION

CALIFORNIA STATE DEPARTMENT OF EDUCATION  
SACRAMENTO, CALIFORNIA

1953

## FOREWORD

The American citizen of today, conditioned by the American public school system, has met well the crises of two world wars and the intervening depressions and periods of prosperity. He must now face with equal courage and meet with equal stamina the problems related to conflicting ideologies which threaten the American way of life.

Among the responsibilities of the public schools is the responsibility to assist boys and girls to achieve their optimum health status and to grow and develop into sturdy, happy, and stable adults. Although exceedingly great in times of peace, this responsibility is even greater during periods of crisis or war. It is imperative, therefore, that schools provide at all times a program which will assist each child, youth, and adult to achieve maximum mental health and physical fitness.

In the attainment of this objective, a major contribution can be made through a comprehensive and intensified physical education program in the secondary schools which assures maximum physical fitness for boys likely to be inducted into the armed forces. And in addition to this emphasis, the program should provide opportunities for all youth and adults to develop the physical fitness they need to assure themselves abundant living and, if necessary, to contribute to the defense of their country.

A handwritten signature in cursive script, reading "Ray E. Simpson".

*Superintendent of Public Instruction*

## PREFACE

The responsibilities of the school for the health and fitness needs of children and youth are noted and appropriately stated in the *Framework for Public Education in California*:

Experiences should be provided for the learner to develop and maintain a satisfactory degree of physical efficiency for daily living and to enjoy a variety of wholesome physical recreational activities, some of which can carry over into adult life. The learner should also have an opportunity to develop the useful skills related to locomotion, those related to work and safety, those related to individual and team sports, with full recognition given to the responsibility he has to conduct himself in socially acceptable ways, exemplifying a spirit of sportsmanship and fair play. Each youth found to have handicapping defects, whether remediable or not, should be encouraged to participate in a modified program of activities designed to meet his individual needs.<sup>1</sup>

All physical activities conducted or sponsored by the schools should contribute to the health and well-being of each individual. Each activity included in the program should be selected with full regard to values in human growth, development, and behavior and be designed to serve the interests, capacities, and maturation levels of the individuals or groups concerned.<sup>2</sup>

During the early stages of World War II, highly intensified physical conditioning activities were incorporated into the military service program. The secondary schools, faced with depleted teaching staffs and increased sizes of classes, were called upon to offer preinduction programs for American youth that would help boys about to enter military service get into the best possible physical condition the limited time would permit. To provide the necessary services in this program, schools were forced to recruit inexperienced and oftentimes untrained teachers for physical education.

As a result of these conditions, some schools replaced diversified instructional programs in physical education for all age groups with intensified physical fitness programs designed for a highly selected segment of American youth. In these programs, little regard was given to individual differences, and a mass "survival of the fittest" was the rule rather than the exception. Today, faced with similar conditions, schools must maintain a well-rounded physical education program for all youth throughout their school years, while emphasizing a preinduction physical fitness program for boys who may enter the armed services.

This guide for teachers of physical education in California secondary schools should be very helpful to those who are faced with the vital problem of planning and conducting programs of physical fitness which must have pronounced preinduction utility. Schools having extensive and comprehensive instructional programs in physical education designed to meet

<sup>1</sup> *A Framework for Public Education in California*. Bulletin of the California State Department of Education, Vol. XIX, No. 6, November, 1950, p. 13.

<sup>2</sup> *Ibid.*

the needs of all pupils, regardless of their health status or proficiency in skills, may need to make little change except possibly to intensify the conditioning phases of the program for boys during their senior year in high school. It is hoped that teachers may find this guide helpful to them in planning and conducting fitness programs designed to meet the needs of each boy who is physically, mentally, and emotionally able to participate in a modified or regular class in physical education.

JAY DAVIS CONNER  
*Associate Superintendent, and Chief,  
Division of Instruction*

VERNE S. LANDRETH  
*Chief, Bureau of Health Education,  
Physical Education, and Recreation*

## ACKNOWLEDGMENTS

The preparation of a teachers guide in physical education for secondary school boys is a long and arduous task. When the professional resources of the state are pressed into service, as has been the case in the selection and preparation of materials for this guide, much time is consumed. The result, however, reflects the needs as well as the experience of those concerned with physical education in California schools.

A state-wide committee reviewed materials that were considered in planning the guide. Most of the members held teaching, supervisory, or administrative positions in connection with physical education in California colleges, universities, or high schools. They were as follows: Haven Young, professor of physical education, and John J. Sellwood, assistant professor of physical education, University of California, Los Angeles; Elwood C. Davis, professor of physical education, J. W. Fredericks, professor of physical education, and J. M. Cooper, associate professor of physical education, University of Southern California; Cecil F. Martin, director of recreation and head supervisor of physical education, and William H. Glenn, Jr., assistant curriculum co-ordinator, Pasadena public schools; Charles W. Davis, director of physical education and recreation, Mrs. Violet Richardson Ward, supervisor of health and physical education, and Thomas L. Nelson, district superintendent, Berkeley public schools; James W. Bradshaw, director of health, physical education, and recreation, Fresno public schools; Aubrey R. Bonham, professor of physical education, Whittier College; George P. Wilson, Berkeley High School; Wood Glover, Jr., supervisor of physical education and recreation, Burbank public schools; Earl W. ("Ace") Parker, Calexico Union High School; Harold Schoenfeld, district superintendent of schools, Decoto; Al Arps, San Fernando High School; Carl E. Klafs, assistant professor of physical education, Occidental College; Jerrold R. Russom, supervisor, physical education section, and John Merkley, Jr., supervisor, youth services section, Los Angeles public schools; J. Tillman Hall, associate professor of physical education, George Pepperdine College; Joseph M. Forbes, associate professor of physical education, Humboldt State College; S. Glenn Hartranft, professor of physical education, San Jose State College; Herbert A. DeVries, Jordan High School, Long Beach; George E. Olsen, Coalinga Union High School; Jack Mauger, McClatchy Senior High School, Sacramento; Clarence A. Edsell, Sonoma Union High School; James E. Healey, Archbishop Home Center for Boys, Sonoma; and Harry Hough, Verdugo Hills High School, Tujunga.

Among those who reviewed the manuscript and sent in constructive suggestions and criticisms were Harry A. Applequist, supervisor of physical education, Sacramento public schools; Dale Hoskin, co-ordinator, physical education and youth services, Los Angeles County; William Ralph LaPorte, professor of physical education, University of Southern

California; Frederick W. Cozens, chairman, Physical Education Department, University of California, Berkeley; Lawrence Houston, director, physical and health education and youth services branch, Los Angeles public schools; J. Holley Ashcraft, assistant supervisor of physical education, Long Beach public schools; and Frank Griffin, Sequoia High School, Redwood City.

Many of those mentioned supplied photographs to be used in illustrating this guide, and in addition the following contributed illustrations: Earl Harris, supervisor of youth services, Los Angeles public schools, and Kenneth W. Mason, director of playgrounds and recreation, Compton Union High School District. Drawings were made by Arthur Dunkel, through the co-operation of Lawrence Houston and Jerrold Russom of the Los Angeles public schools.

Among materials used by permission of their original publishers are some from Louis E. Means, *The Organization and Administration of Intramural Sports*, published by C. V. Mosby Company, St. Louis, (second edition) 1952, some from the Victory Corps pamphlet, *Physical Fitness Through Physical Education*, published by the Federal Security Agency, U. S. Office of Education, used by permission of the late Frank S. Stafford, and some from *Physical Fitness for Boys*, by Ben W. Miller, Karl W. Bookwalter, and George E. Schlafer (1943), used by permission of A. S. Barnes and Company.

Part of the work in connection with the compilation and preparation of materials was done by Genevieve Dexter, Consultant in Physical Education, and Carson Conrad, Consultant in School Recreation, staff members in the Bureau of Health Education, Physical Education, and Recreation. The chapters on fitness through the sports program for boys and the coeducational program of activities, the several sections on safety precautions, and other sections were prepared by Louis E. Means, who succeeded Mr. Conrad as Consultant in School Recreation when the latter was recalled to military service during the summer of 1951. Mr. Means also did considerable work on other chapters.

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# I

## PHYSICAL EDUCATION IN THE SECONDARY SCHOOL CURRICULUM

PHYSICAL education is relatively new in the school curriculum, and yet it is an exceedingly old form of education. The first physical educator was probably the parent who taught his son to throw a spear, to climb a tree, to leap a brook, and to perform the many skills that were necessary for survival in the tribal life of uncivilized man. Since those faraway days the social scene has changed tremendously, but the old motor patterns remain. The need to throw a spear has passed, but the need to throw continues; the frequent need to climb a tree is gone, but the urge to climb reappears in every boy; the need to leap a brook rarely occurs, but the necessity to leap arises again and again. Development of the fundamental motor processes is essential to the full development of the whole child. This fact makes apparent the important part that physical activity plays in a well-rounded program of education.

The social heritage presents each new generation with problems that are more complex than the problems inherited by the previous generation. When the social heritage was limited, youth had only a few skills to learn and one or two legends to memorize in order to be self-sufficient; education was then a simple matter. But today, the social heritage is great, which makes the selection of appropriate instructional materials for the total curriculum an exceedingly difficult task. Obviously the selection of the activities for the physical education program presents a formidable problem, one that merits special attention. All motor experiences, and there are a great number of them, are physically educative, but some produce more desirable effects than others. A good physical education program includes the "sum of man's physical activities, selected as to kind and conducted as to outcomes."<sup>1</sup>

The activities in the physical education program should be balanced between the different types of activities and be sufficiently varied in complexity that each student can attain his objectives. To make this possible, high school students should have opportunities to participate in individual, dual, and team games, folk and square dances, developmental exercises, rhythmical activities, gymnastics, tumbling, apparatus activities, and aquatics. They will have a purpose for participating in each activity. Their total program will help them develop wholesome personalities—physical, social, and mental—insofar as physical education activities contribute to this end. Physical education will thus help them to develop desirable emotional responses, personal relationships, intellectual learnings, and other social, emotional, and esthetic aspects of individual growth.<sup>2</sup> The acquisition of these characteristics will make it possible for students to work with increasing success in activities of their choice.

### THE MEANING AND PURPOSE OF PHYSICAL EDUCATION<sup>3</sup>

Physical education is a way of education through physical activities which are selected and carried on with full regard to values in human growth, development, and behavior. Physical education, an integral phase of the total educational program, contributes abundantly toward the well-rounded development of all children and youth as responsible citizens.

<sup>2</sup> The foregoing paragraphs have been adapted from the opening chapter of *Physical Education in the Elementary School*, by Winifred Van Hagen, Genevieve Dexter, and Jesse Feiring Williams. Sacramento: California State Department of Education, 1951.

<sup>3</sup> The section that follows is adapted from "A Platform for Physical Education," a report prepared by W. K. Streit and Simon A. McNeely, and adopted by the Representative Assembly of the American Association for Health, Physical Education, and Recreation in 1949.

<sup>1</sup> Jesse Feiring Williams and C. L. Brownell, *The Administration of Health and Physical Education*. Philadelphia: W. B. Saunders-Co., 1946 (third edition), p. 20.

Physical education provides a wealth of activities which, along with other activities in the curriculum, offer students opportunity to

1. *Develop and maintain maximum physical efficiency.* A physically efficient person has a body in which the processes function normally and is free of remediable defects. He possesses such qualities as strength, endurance, flexibility, a sense of balance, agility, and good posture and efficient body mechanics. He exercises these qualities according to his age, maintaining a balance of activity, rest, work, and recreation. One who has nonremediable defects learns to adjust to and compensate for his infirmities and develop his capabilities in order to live a happy, useful life.

2. *Develop useful skills.* A skillful person is proficient in many fundamental skills, such as walking, dodging, gauging the speed of moving objects, and lifting, which are essential to living safely and successfully, and evidences ability in a variety of activities, such as team and individual sports, swimming, and dancing, that contribute to physical and social efficiency at each stage of life.

3. *Conduct himself in socially acceptable ways.* A person who behaves desirably, among other things, acts in a sportsmanlike manner, works for the common good, and respects the personalities of his fellows (team games and other group activities offer many opportunities to acquire these qualities). He enjoys, contributes to, and is at ease in a variety of wholesome social situations (co-educational sports, dancing, swimming and other such activities help provide learning experiences for this), exercises self-control in activities which are mentally stimulating and often emotionally intense, reacts quickly and wisely under pressure, and is courageous and resourceful (games, contests, and other competitive sports help bring out these qualities when there is good leadership).

4. *Enjoy wholesome recreation.* A person who engages in wholesome recreation includes in his daily living activities that bring deep satisfaction, and are often creative, relaxing, or stimulating, and draws upon a fund of recreation interests, knowledges, appreciations, and skills.

A competent physical education teacher makes the most of his many opportunities to help boys and girls, youth and adults, gain these values. As a teacher, his job is to select, organize, and guide activities suited to the needs, capacities, and interests of everyone taking part.

#### PLATFORM FOR PHYSICAL EDUCATION

FOR every person there should be opportunity to gain the values of physical education by taking part in activities selected according to his interests and according to his needs.

Everyone should be encouraged to take part regularly in a variety of activities appropriate to his age, physical condition, abilities, and social interests.

A thorough medical examination should be one of the main bases for the selection of physical activities for all persons. Children and adults should have a medical examination every year. The school health program should call for a periodic examination at least every three years with additional provisions for special examinations of those who seem to need medical attention, and of those who are planning to participate or are participating in vigorous competitive activities. Proper use of results of these examinations should bring about the maximum physical development of each child and youth and the maintenance of fitness of the adult.

IN every community all possibilities for physical education should be developed. Good schools, in making the most of the opportunities of physical education, provide guidance, a well-balanced, varied program, and indoor and outdoor facilities, equipment, and other teaching tools adequate for full participation. Community and school facilities for recreation should complement each other, should be adequate in amount, and should be used efficiently in a constructive program of activity to serve the needs of all children, youth, and adults. The program should be carried out in accordance with sound principles of physical education. The physical education environments should be established and maintained with full regard for the health and safety of those who use them.

THROUGH the elementary schools, every child in this formative period of his development should have the advantage of a well-planned, well-conducted physical activity program.

Teachers who understand the place of physical education in child development, and who are competent in guiding the learning, provide ample time and individualized instruction in skills and techniques for a variety of activities. These activities include modified athletic games, stunts, tumbling, creative rhythms, folk dancing, and simple games for large and small groups. Proper attitudes and understanding are sought and may be increased by encouraging children to assist in planning and carrying out the program. Instruction is supplemented by other physical education opportunities during recess, supervised play, intramural sports, and other curricular activities.

NO boy or girl in junior and senior high school should be deprived of the physical and social development to which physical education contributes so much. Every high school student has a right to a daily period of *instruction* in such activities as team sports, individual and partner sports (such as tennis, badminton, handball, golf), stunts, folk, square, social, and creative dancing, swimming, and many more, or, if he is handicapped, modified activities that bring him as much of the full program as his condition permits.

Length of periods, credit, methods of marking, and other qualities should be comparable to those of other phases of the curriculum. Maximum values in the time devoted to physical education are achieved when there is selected grade placement of activities and groupings for efficiency in learning. There should be, also, adaptation of instruction to activity needs and interests at various age levels, and student participation in planning and carrying out the program.

EFFECTIVENESS and efficiency of secondary school students should be developed and maintained through a co-ordinated campus-wide program which includes physical education experiences for ALL students. The secondary school has a responsibility for providing a full program

of physical activity to help each student achieve and maintain a high level of personal and social competence.

SUPPLEMENTING instruction in physical activity, there should be ample opportunities for all boys and girls to participate in intramural and other recreational activities. The total needs for activity cannot be met feasibly in the instructional periods alone. Neither can all other values be realized. Elementary and secondary schools and colleges should provide opportunities for every student to participate voluntarily in wholesome intramural activities on a level of competition appropriate to ability, size, and degree of maturity. Schools and colleges should also provide for participation in sports and other activities, through clubs and similar means, on a basis other than that of organized competition.

SO that all the educational values of interscholastic athletics may be secured for youth, athletics should be administered and conducted by school officials and teachers who are primarily concerned about the welfare of the participants. As an outgrowth of a good program of instruction for all and intramurals for many, interschool competition may offer valuable educative experiences for the well skilled. Full regard must be given to the factors of age, sex, size, degree of maturity, condition of health, skill, ability, social and psychological development, and personal and professional competency of the leaders.

UNITED through professional associations on national, district, state, and local levels, leadership in physical education should represent the finest professional preparation, personal integrity, and social consciousness. Because of the tremendous possibilities for good that are latent in physical education and because the nature and appeal of the activities magnify the influence of the leader, especially when dealing with impressionable youth, those who presume to educate through physical activities should be equal to their trust.

The staff selected to conduct the program of physical education should meet standards of certification and professional preparation that are

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The staff selected to conduct the program of physical education should meet standards of certification and professional preparation that are



equivalent to those for other members of a school's teaching staff.

STATES and local communities, assisted where necessary by the Federal government, should provide sufficient support for a quality program of physical education. Physical education is an integral part of the total educational process. Within a good educational program physical education should be established with resources adequate to achieve its full purpose. Budgets of boards of education need to include such *educational necessities* as play areas, gymnasiums, swimming pools, sports equipment and supplies, shower, locker, and towel facilities, and, not the least, salaries of supervisory and teaching personnel adequate in number.

AMERICA must remain strong; all those who live beneath her flag—all agencies concerned with the health, physical, and social well-being of her people—must work together for national security and international good will through citizens who possess total *fitness*. National security and international good will can be achieved by citizens who "live most and serve best." The role of physical education in their development is not insignificant. The principles outlined in this platform, integrated with those of the platforms of health education and recreation, if applied, will contribute much to the development of total fitness of the people of the United States of America.

## THE PHYSICAL FITNESS PROGRAM

Physical fitness (or the physical aspect of fitness) is only a phase of total fitness. The limitations of fitness are determined and modified by inheritance; but within these limitations daily living practices may develop and otherwise influence fitness.

Fitness for living, be it in the home, on the farm, in the factory, or at the front, implies freedom from disease and from significant deviations from normal structure and function; enough strength, speed, agility, flexibility, endurance, and skill to accomplish the maximum

tasks that the day may bring; and mental and emotional adjustment normal for the individual at his age. Suitable work, adequate nutrition, exercise, rest, the use of preventive medical services and therapeutic treatment, and the avoidance of excesses, including use of alcohol and tobacco, are all important in maintaining fitness. Physical fitness, or the physical aspect of fitness, connotes the ability in an individual to participate in strenuous activities with comparative ease and efficiency without undue fatigue and to sustain the effort over a period of time.

## Objectives of the Physical Fitness Program

It has been said that the primary aim of a physical fitness program is to make a unique contribution to the individual's optimum growth and development physiologically, and that a secondary, but no less important aim is to contribute to such psychological and sociological development and adjustment as is to be gained through participation in vigorous and wholesome physical activities.<sup>1</sup>

Such objectives for physical fitness are in harmony with the objectives of physical education. Both are predicated on the organismic unity of the individual. They indicate emphases that should be given the various physical aspects of development. They indicate other outcomes of physical education. The objectives of the physical fitness program include the development of (1) physical and organic vigor; (2) desirable social traits and qualities of character; (3) knowledge pertaining to physical education activities; (4) capacity and skill for recreational activities; and (5) safety skills. The brief discussions of each of these objectives that follow make apparent the importance of the objectives and the extent to which they are planned with the single purpose of so directing students that they will participate in activities that will help them develop physical fitness.

*Development of Physical and Organic Vigor.* The development of good general health, good nutrition, organic vigor, and muscular strength, speed, flexibility, and co-ordination is the funda-

<sup>1</sup> Ben W. Miller, Karl W. Bookwalter, and George E. Schlafer, *Physical Fitness for Boys*. New York: A. S. Barnes and Company, 1943.

mental objective of a physical fitness program. This first general objective is basic to the rest of the objectives of a physical fitness program. However, each of the other objectives contributes in turn to physical growth and organic vigor.

Endurance, the capacity of the organism to do repeatedly the maximum of vigorous work with the least fatigue and to recover therefrom in the minimum of time, is an essential condition for physical fitness. Endurance requires a systemic, largely cardiovascular, soundness. Regularly increasing amounts of active physical exercise, within the capacity of the individual but overloading the normal psychological limit of persistence, and extending over a long period of time, are necessary to the attainment of endurance. The normal daily physical activities of the average youth are inadequate to attain this objective. Therefore, schools must motivate and largely provide an activity program conducive to such development.

*Development of Desirable Social Traits and Qualities of Character.* Initiative, self-discipline, a wholesome spirit of competition as well as of teamwork and co-operation are traits sought in members of the armed forces. They are just as necessary to a person's working and social life. Sociability, with an adequate counterpart of aggressiveness, leadership and followership and sportsmanlike observance of rules and of the decisions of constituted authority are especially necessary in a democracy. Provision for the development of these qualities in students is partially a matter of choice of activities but essentially it is determined by the kind of administrative and instructional leadership offered.

*Development of Knowledge Pertaining to Physical Education Activities.* Certain essential knowledges should be sought by those listening to the presentation of and practicing in physical education activities. These should include knowledge of rules for body conditioning, awareness of one's physical status in relation to standards such as those for nutrition, strength, motor ability, and endurance, familiarity with rules and strategies of selected games and sports, increased

temporal and spatial judgments associated with sports and gymnastic activities, and insights and appreciations concerning techniques and activities of the physical fitness program.

Emotional control and poise should be so developed that even in times of strain one's poise and self-control are not lost. A courage and confidence born out of knowledge of one's physical fitness to meet the tasks of life will go a long way toward building up morale. A healthy individual has the will to persist, even in the face of fatigue or defeat.

*Development of Capacity and Skill for Recreational Activities.* If physical fitness and high morale are to be maintained while the demands of war preparation, fighting, production, and civil tensions are met, men must be able to relax and to recreate their physical strength and mental poise. A repertory of recreational skills and habits of participating regularly in wholesome recreational activities are necessary to the maintenance of power and the enjoyment of life. These skills should be sufficiently varied that the individual will have lifelong recreational interests. The provision of a wide variety of recreational activities requiring varying degrees of physical exertion should be one of the principal objectives of a fitness program.

*Development of Safety Skills.* Skills and capacity for handling the body in sudden emergencies, regard for the safety of oneself and of others, reasonable caution in physical activities, first-aid care of victims of accidents and treatment of sudden illnesses are among the essential safety objectives of the physical fitness program. All of our fighting men are on, over, or under the water much of the time. A shocking per cent of recent war mortality has been due to the fact that men thrown into the water could not reach land a short distance away, or could not remain afloat until near-by rescuers could arrive. In civilian life a high number of injuries and deaths is attributable to accidents. Swimming, combative activities, and stunts and tumbling offer opportunities for boys to add to the strengths, speed, motor abilities, and endurance that assure them of a "fighting chance" both in combat and in civilian life.



## THE SCOPE OF PHYSICAL EDUCATION

Total fitness, which calls for growth in mental and emotional strength as well as for growth in physical strength, is more than just physical fitness. Upwards of one million men were rejected by the armed services during World War II because of nervous and mental disabilities. This resulted from a multiplicity of conditions. In all probability many of those rejected never had proper guidance and counseling while they were students. To overcome this lack all teachers, and especially physical education teachers, should keep in mind the concept of total fitness—mental and emotional health, social adjustment, and physical vigor.

The school should provide opportunities for the continuous growth and development of each student, both as an individual and as a member of a group. Physical education provides opportunities for physical growth through an increase of body strength, co-ordination, and endurance according to the need of each individual. Physical education also contributes to the curriculum through opportunities for social and emotional experiences. Participation in a wide range of physical and social activities is necessary for growth in these areas. All activities used in the program must be selected and adapted to meet the needs, capacities, and interests of students.

A well-balanced physical education program must include group activities such as team sports and social and recreational games, and individual and dual activities; the latter include certain sports and games, stunts, aquatics, tumbling, gymnastics, and rhythmical activities. Correct body mechanics and posture, based on an understanding of the health status and needs of the individual, forms the foundation for all physical activities. Opportunities for coeducational activities and for physical recreation should be provided in great abundance through intramural programs.

Physical education in the secondary schools of California is allotted one instructional period in each school day equal to the length of the regular academic periods. This time is specified by law.

It should not be decreased by scheduling subjects not related directly to physical education. Because of this large time block, physical education can offer opportunities for every participant to receive numerous worthwhile contributions. Every teacher must strive to plan and execute a program that is dynamic, all-inclusive, and well-balanced; one that will be received with anticipation and pleasure by all students, regardless of their varying needs and peculiar interests.

### Relation of Physical Education to Health Education

Along with other phases of the secondary school curriculum, physical education has a definite contribution to make to the school health program. A physical education program should help each student understand his physical abilities and give him experiences that will enable him to correct faulty posture habits and acquire simple motor and game co-ordination. Each student, by finding at least a few activities that he can master and perhaps one or two in which he can become highly skilled, receives a sense of achievement that is necessary to his happy adjustment.

The physical education teacher can contribute greatly to a student's understanding of the adjustments necessary for his welfare in the case of temporary ills, diseases, accidents, or operations that restrict physical activity, but health guidance on the part of the teacher must be co-ordinated with school health service and guidance service. A student may have the need for the correction of a remediable physical defect pointedly brought to his attention when such a defect prohibits participation in a desired activity. If this is done by physical education teachers they should be well informed regarding the case history and know how the fault can be corrected. The assistance of the school nurse, doctor, and health counselor should be sought in securing the correction that cannot be brought about by the physical education program.

Cleanliness and proper rest in relation to exercise are inherent in physical education. Because physical education departments usually have the only school facilities available for bathing, i



Extended use is made of outdoor recreational facilities in a modern high school. In addition to regular daytime use of facilities, night lighting makes it possible to schedule sports during the evening hours.

would seem that physical education teachers should take major responsibility for inculcating daily habits of personal cleanliness and grooming. In many instances it will be necessary to teach proper bathing techniques and to impress the student with the idea that bathing should always follow exercise.

### **Relation of Physical Education to Recreation**

The schools of California have the responsibility of providing experiences that offer students opportunity to develop the basic skills of learning to solve problems in group living, to understand one's environment, and to live creatively and healthfully. The secondary schools must also provide opportunity for the use of these skills in the enrichment of adolescent life. Hobbies, avocational interests, or recreational activities should be a part of the secondary school curriculum whether they are provided within the normal school day, as part of an extended school day, during an extended school year, or off the campus. School camping and outdoor edu-

cation are being developed by California schools to add to the curriculum enriched experiences in personal and social living that can be obtained only through such means.<sup>1</sup>

Physical education should provide students opportunities for developing a large share of skills that contribute to recreational pursuits. Although some emphasis should be placed on skills that will be adaptable to later adult use, physical education must include a repertory of recreational social activities interesting to adolescents. Time, leadership, and a proper share of facilities should be given by the physical education staff for an intramural program geared to the interests of all youth. This is just as indispensable and just as vital as the program provided for smaller groups of highly skilled boys in an extensive interscholastic sports program.

Physical education personnel and facilities should be made available for all forms of school recreation. Often this means advisers for class

<sup>1</sup> Developments in this area are discussed in *Camping and Outdoor Education in California*. Bulletin of the California State Department of Education, Vol. XXI, No. 3, March, 1952.

or club dances, for game nights, for parties, and for folk or square dance groups. Physical education teachers may be advisers for block letter clubs, for class organizations, and for student body groups, but they assume such roles because of personal qualifications, not because they are physical education teachers. Some secondary schools have a recreation or student activities coordinator on the school staff to co-ordinate such activities as student government, dramatics, school camping, debating, music, field trips, assemblies, and school and community recreation. A school, to be of greatest service, should not only lend its facilities and offer some leadership in community recreation but also help students make a selection of recreational activities at school and in the community.

### **Relation of Physical Education to Leadership Education**

Experiences in leadership are provided in the various subject fields and in various student organizations. Physical education has a vital part to play in the program of leadership education. *The Framework for Public Education in California* stresses the point of view that public education in California is concerned with full realization of individual capacities, civic responsibility, human relationships, and economic efficiency. Secondary schools offer opportunities for students to attain these objectives. Many of these opportunities are offered in the program of leadership education. In the field of physical education such opportunities are provided through student-planned activities, class squads, and student directed and officiated intramural activities.

The letterman's club and other special sports clubs and interest groups provide opportunity for committee work, planning and participating in sports days, extramural events, and corecreational activities. Physical education should offer opportunities for qualified boys to act as teacher assistants and group leaders. There should also be provided in physical education opportunity for students to explore vocations. Physical education can thus provide experiences which develop the skills and techniques of leadership and followership, with each student making contributions according to his ability.

### **Relation of Boys' to Girls' Physical Education**

The boys' and girls' physical education departments must work co-operatively, for only through a united approach can they make the greatest contribution to the total school program. Through joint membership on school study committees, through the best use of all facilities throughout the school day, and through rich experiences in physical activities for boys, for girls, and for boys and girls together, they can contribute to the full development of all boys and girls. The physical education program for both boys and girls becomes more dynamic and meaningful when the professional ability of both men and women physical education teachers is concentrated on class instruction and recreational leadership. Problems of use of facilities, equipment, instruction, evaluation, and recreation can be solved more satisfactorily when both the boys' and girls' physical education departments work co-operatively.

## II

# PLANNING, ORGANIZING, AND ADMINISTERING THE PHYSICAL EDUCATION PROGRAM FOR BOYS

THE physical education program for each school should (1) be co-operatively planned by school personnel, students, and other members of the community in which the school is located; (2) further the general educational philosophy of the school; (3) provide adequate opportunities for each student's physical needs to be met and his continuous growth to be assured; and (4) make available a method of instruction and evaluation that the teachers of physical education can use to advantage in keeping the program operating at peak efficiency.

A good physical education program functions as an interrelated part of the total school curriculum. It provides opportunities for each student to develop adequate physical fitness to perform with maximum efficiency in various academic, vocational, and recreational pursuits. It represents the co-operative efforts of the school administrators, specialists in curriculum construction and in the field of physical education, teachers from each of the various academic and vocational fields, students, and other representative citizens of the community in which the program is in use. The program is understood, looked upon with favor, and well supported by the community.

## PLANNING THE COURSE OF STUDY FOR PHYSICAL EDUCATION

Planning the course of study for physical education should be preceded by a survey of outstanding courses of study that are being used in schools similar in size and located in communities comparable to the one for which the course is being developed; by a study of the principles of child growth and development; and by an analysis of the needs and interests of students in the school where the course of study will be used. When this

work is completed, an outline similar to the one that follows should be made and used as a guide in developing the course of study.

### I. The philosophy of education

- A. The general philosophy of education employed by the school is used as a guide in developing the course of study in physical education.
- B. The course of study in physical education furthers the principles of the philosophy employed.

### II. Objectives

- A. Objectives of teachers of physical education
  - 1. To adjust instruction to each student's ability
  - 2. To provide opportunity for each student to develop to the highest level of physical fitness commensurate with his ability.
- B. Objectives of students taking physical education
  - 1. To understand the contribution that physical fitness makes toward their success in all areas of endeavor
  - 2. To participate in activities that will help them develop to the highest level of physical fitness of which they are capable
  - 3. To learn their physical limitations and use the information as a basis for choosing their vocational and recreational activities
  - 4. To develop health habits that assure the highest possible level of physical fitness throughout their lives



Photograph by Fred Knighton

Physical education personnel and facilities are made available for all forms of school recreation, including club dances, game nights, parties, and folk or square dance groups.

### III. Variety and amount of content utilized in the program of physical education

#### A. Provision for each student to develop physical fitness

1. Activities are sufficiently varied in type as to offer each student who participates in them opportunities to develop a degree of physical fitness that is commensurate with his ability.
2. Activities are sufficiently broad in scope that students are provided opportunities to develop skill in many areas.

#### B. Provision for each student to make numerous applications of the skills learned

1. Adequate opportunities are provided for the maintenance of skills acquired.

2. Activities are suitably graded to provide opportunities for the development of increasing skill in areas of special interest.

### IV. Method of instruction employed in each area of activity

#### A. Instruction is organized to provide all students opportunities to acquire special skill.

1. A core of selected activities is employed to assure all students opportunity to acquire well-rounded skills and facility in physical activities.
2. Activities other than those included in the core of selected activities are employed to give each pupil opportunity to become exceptionally proficient in the use of the skills

- required in activities of his choice or that are especially well adapted to his needs.
3. Each block of activities is utilized for specified periods of time.
- B. Instruction is organized so that it can be adapted to the needs and abilities of each student.
1. Provision is made for grouping students according to their needs and abilities and general instruction in each activity is given them in their respective groups.
  2. Instruction is modified or changed as need is indicated by the results of the appraisals that are made of students' progress and attainment.
  3. Content and instructional procedures are changed when the results of the appraisals indicate that established objectives are not being attained.

## ORGANIZING THE COURSE OF STUDY FOR PHYSICAL EDUCATION

The outline drawn up for the physical education course of study should be used as a guide in developing the course. Full and careful consideration should be given to each phase of the plan. And there should be provision for the full development of each phase as an interrelated part of the program of physical education. This can be done by following the practices that are described in the materials that follow.

### The Philosophy of Education

The philosophy of education that is employed by the school as a basis for all curriculum development should be thoroughly analyzed and studied. After this study has been completed, those responsible for developing the physical education course of study should determine ways in which the philosophy can best be employed as a guide in developing the course of study. To accomplish this they must determine the objectives that will be established, the basis upon

which content will be selected, and the methods of instruction and evaluation that will be used.

### The Objectives of Physical Education

The objectives for the physical education program should further the general philosophy of education that is employed by the school. They should be of such nature as to be integral parts of the objectives for the total school curriculum; indicate needs of students which will receive major consideration in each phase of the program; make apparent the understandings and the physical abilities and skills students will have opportunity to acquire; indicate the general plan of instruction; and be standards by which students' progress may be appraised.

### The Selection and Organization of Activities

Activities for the course of study in physical education should be selected (1) in relation to students' needs, interests, and abilities; (2) as needed in a core essential to the development of the full range of physical skills; (3) as needed to provide enrichment for each phase of the core; and (4) as needed to provide the physically handicapped opportunity to participate in modified activity.

If activities are selected in relation to students' needs, interests, and abilities, planned procedures should be followed in making certain that a comprehensive list of these qualities is available. The suggested procedures which follow may be used for this purpose. When the desired list is completed, it should then be used as a guide for selecting the activities that are needed.

*Students' Needs.* To determine students' needs, study should be made of their cumulative school records and health histories and the objectives which they hope to attain. The information thus gathered should be supplemented by opinions expressed by employees in various jobs regarding the degree of physical fitness that they believe essential to success in the fields of their endeavor. Such information may be collected by questionnaire. Activities should then be selected that may be used to help each student meet his needs.

*Students' Interests.* To determine students' interests, analyze their objectives and then give them opportunity to indicate the phases of physical education that will help them attain their objectives. A check list may be used to find students' interests in various activities. The check list used for this purpose should be planned so that the student can indicate whether he has great, limited, or no interest in each activity listed. Activities should then be selected that may be used to help each student pursue his interest to the extent of his ability.

*Students' Abilities.* To determine students' abilities, study the records of physical examinations they have had, observe them as they participate in various types of activities, and discuss with them the extent to which they have successfully participated in various activities. A check list may also be used to gather information regarding the students' abilities. The check list used for this purpose might be planned so that each student rates his ability in an activity, all other students rate his ability, and the teacher rates his ability. This multiple rating of each student's ability should then be appraised through conferences with each student. Activities should then be selected to secure sufficient variety and varying degrees of complexity that each student can be given opportunity to participate in turn with reasonable success and to develop the ability he needs to participate in other activities successfully.

In selecting activities, thought should be given to providing adequate opportunity for all able-bodied students to develop a wide range of physical skills to the extent that they will be useful and helpful in their daily lives. These activities should be varied in type to the extent that they can be employed as a basis for meeting each student's needs, furthering his interests, and permitting him to use and extend his ability. They should be organized as the *core course* in the physical education program.

*The Core Course.* The core course should include activities that provide all able-bodied students opportunities to participate in varied indi-

vidual and dual sports, team games, physical and rhythmical activities, recreational activities, and aquatics. If adequate facilities are available, the following activities should be included in the core course.

Baseball	Special stunts
Basketball	and relays
Combatives	Swimming and diving
Conditioning exercises	Tennis
and drills	Track and field
Folk and square	events
dancing	Trampoline
Football, flag and	Tumbling and
touch	pyramid building
Gymnastics	Volleyball
Rope work	Water games
Soccer and speedball	Water safety
Softball	

Since the activities in a core course provide opportunity for students to become familiar with a wide range of different types of activities and to acquire certain skills that are essential to the development and maintenance of physical fitness, the time allocated for each activity should be short enough that all the activities will receive appropriate attention. Generally, six or fewer weeks provide sufficient time to familiarize students with an activity and for students to acquire reasonable degrees of proficiency in using the skills that are necessary for successful participation in it. Students may then further their skill in an activity by including it in their elective courses or by seeking opportunity to participate in it outside their regular classes in physical education.

During the time allocated for each core activity there should be provision for students to participate daily in conditioning exercises, ranger exercises, grass drills, and the like. These should be interwoven in the instructional procedures and given such amounts of time as it takes to give students adequate opportunity to acquire from each the values which they need to develop and maintain a degree of physical fitness that is commensurate with their abilities and needs.



In addition to the activities which are included in the core course, activities should be chosen which may be used in the *elective course*. Activities selected for this purpose should be sufficiently numerous and varied in type that each student may be given opportunity to develop a high degree of proficiency in activities in which he has special ability and in which he is especially interested.

*The Elective Course.* The elective course should be planned so that every able-bodied student may have opportunity to participate in certain activities that he believes will be especially helpful to him as a person. There should be provision in these courses for students to participate in activities such as the ones that follow:

Archery	Paddle tennis
Badminton	Shuffleboard
Bait and fly casting	Social dancing
and fly tying	Social games
Bowling	Squash
Boxing (instructional)	Swimming, diving,
Camping	water safety
Coeducational folk	Table tennis
and square dancing	Team sports and
Croquet	officiating
Fencing	Water polo, water
Golf	basketball, water
Handball	volleyball
Hiking	Winter sports, includ-
Horseshoes	ing skiing
Paddle ball	Wrestling

Throughout the elective course emphasis should be upon activities in which students can develop those skills which will continue to have value as the students mature. The elective course for a semester or a year should include a number of different types of activities such as social dancing, team sports, and recreational games. Each of the activities included in the course should be carried on during the physical education period for approximately three consecutive weeks. In this length of time students will have opportunity to manifest their interest in an activity and to develop a reasonable degree of skill in participating in it.

*The Modified Course.* The modified course should be planned so that every student with a handicap can be given opportunity to profit from participation in some activity. The activities chosen for this purpose should be sufficiently simple in nature that some of them might be enjoyed by each student regardless of the type of physical handicap he has or the extent of the handicap; others should range in easy steps from the simple toward the more complex so that as each handicapped student learns how to participate successfully in an activity he may employ his new skills in increasingly complex activities.

### The Plan of Instruction

Instruction should be planned so that each student will be helped to receive maximum benefits from participating in the various phases of the physical education program. This can be accomplished by providing for students (1) to be made aware of the values that they will share as a result of wholehearted participation in each activity; (2) to develop and maintain interest in a variety of activities in which they can participate to maintain physical fitness; (3) to acquire skills in various activities and to a point commensurate with their abilities; and (4) to be informed regarding their progress in attaining the objectives they are seeking.

*Students' Awareness of Values.* Each activity should be introduced by helping the students to understand why it is used in the program and to become informed regarding the ways in which they will profit from participating in it. In making this provision, students are oriented in each phase of the program and thus develop purpose that stimulates them to put forth their best effort at all times.

*Students' Interest in Activities.* Each activity should be employed for a sufficient length of time to give students opportunity to develop a reasonable amount of proficiency in using the skills that are required in the activity. Generally, students' interests will be maintained at a reasonably high level, providing this period of time does not spread over a continuous period of more than six weeks. If student interest lessens to a



noticeable extent at any point in all probability the activity should be replaced with another and then reintroduced at a later date. In the core course it is very important that no activity be used for so long a period of time that another activity must be dropped from the course.

*Students' Skill in Activities.* In the core course there should be provision for each able-bodied student to acquire reasonable skill in a variety of activities. However, care should be exercised to make certain that in each activity a student is not expected to develop skill that is beyond his ability. And as students are discovered with outstanding skill in certain activities, they should be so guided that they will be made aware of their ability and be informed whether they should take in the elective course work that will help them develop it further or whether they need work in other types of activities to develop as well-rounded and physically fit persons.

Students who can participate in modified activities only should be encouraged to work only to the extent that they will profit from their efforts. But as they develop they should be given an increasing number of opportunities to participate in different activities as well as in activities of varying degrees of difficulty.

*Evaluation of Students' Progress.* Students' progress in each activity that they participate in should be appraised at regular intervals and the students informed of the results of the appraisals. Appraisals that indicate that students are not making satisfactory progress should be used as a basis for changing the type of instruction or to shift the student from one group to another if for any reason it is possible that he is not putting forth his full effort. They may also be used as a basis for discussing with students their failure to do work commensurate with their ability and in attempting to discover why they are not working up to their capacity. Through such discussions the students may be encouraged to strive for greater progress. Appraisals that indicate that students are doing satisfactory work may be used as a basis for guiding their efforts so that they can gain even greater benefit from the program in the future than they have in the past, for

determining other activities in which they may participate with equal or greater success, or for moving them into a group in which they may make still greater use of their abilities.

## ADMINISTERING THE PROGRAM OF PHYSICAL EDUCATION

The plan for administering the program of physical education should provide for (1) grade placement of core and elective courses; (2) grouping of students; (3) scheduling of classes; (4) issuing of equipment; and (5) health services. Problems of administration connected with the sports program and with coeducational activities are discussed in Chapters III and IV.

### Grade Placement of Courses in Physical Education

A program of physical education that should be offered pupils in grades seven and eight is presented in *Physical Education in the Elementary School*.<sup>1</sup> If possible, the program for grade nine in a junior high school should be planned to include basic core courses that prepare students for the program in which they will participate when they enter the three-year high school that serves the area.

In three-year high schools, core courses should be given for the tenth-grade students who have had core courses in the ninth grade and for tenth- and eleventh-grade students who did not have such courses while they were in the ninth grade. In other words, each student should have two years of successful participation in core courses before being offered elective courses.

In four-year high schools core courses should be presented in the ninth and tenth grades and elective courses in the eleventh and twelfth grades.

At all grade levels, modified courses should be provided for students with physical handicaps who need such courses. These should include opportunities for students to participate in activities in which they can be successful and that will be conducive to correcting their physical conditions. They should make provision for physically

<sup>1</sup> *Op. cit.*, Chapters 20, 21.

handicapped students to have the rest periods they need. The various physicians in the community served by the school should be consulted regarding the operation of this phase of the physical education program. Thus practically all reasons for excusing students from participation in the physical education program can be eliminated.

### **Grouping Students for Physical Education**

To group students for physical education, physical education teachers should know the degree of physical facility each student has attained. This information should be secured from physical examinations administered by physicians and from students' health records. After students have been grouped on the basis of their physical conditions they should then be further grouped according to their physical maturity and the achievement which they have made in various physical activities. Groupings thus formed should be subject to constant change. However, changes should be made on the basis of systematic appraisals of students' abilities. Such appraisals should be constant parts of the instructional procedure. To provide appropriate opportunities for continuous regroupings of students, there should be two or more different groups active during each class period.

### **Scheduling Classes in Physical Education**

The policy of preregistration for physical education classes should fit into the over-all school plan. Size of classes, teacher load, and student groupings must be taken into consideration in formulating the school policy of scheduling.

The standard of not more than 35 boys to a class should be enforced. In no other way can adequate instruction be given. "Mob-packed" classes must be eliminated. Enrollment in a posture and modified activity class should never exceed 20. Classes for such activities as badminton and tennis are limited by the facilities available. Enrollment for these classes should be restricted, and when applicants exceed the established limits the administration should make provision for either additional classes or additional facilities.

Physical education teachers need a period for preparation just as do teachers of academic subjects. If the teacher is to create a well-planned course of study and make effective use of it, to dress appropriately for the gymnasium or playing field, and to instruct and supervise, he should have a reasonable teaching load. Better teaching and greater contribution to the growth of students result when fatigue and tension are eliminated for faculty members as well as for students. The physical education teacher, concerned with after-school program planning as well as class instruction, needs time for attention to lesson plans and to scores of constantly changing details that are vital to the success of a complete program.

Every school should have a working policy for providing an adequate physical education program during rainy, snowy, cold, or windy days. In areas where weather conditions keep students indoors as much as one-third to one-half of the year, indoor facilities must be provided for every class. In areas where inclement weather is rather infrequent, special arrangements need to be made for these days. Some of the things that can be done to provide a good physical education program in spite of bad weather are the following:

1. Plan units of instruction for blocks of indoor activity.
2. Schedule rooms other than the gymnasium for study of rules of games, for viewing films, and for holding discussions.
3. Conduct in a single gymnasium activities for several classes, such as mass volleyball, relays, exercises, mass games, and folk and square dancing.
4. Plan coeducational units of instruction.
5. Hold discussions on the history and background of sports and activities, or on safety precautions, using illustrated or diagrammatical studies of the activities.

### **Issuing Equipment for Physical Education Classes**

Proper administrative responsibility for the issuance and care of equipment and supplies for physical education activities is important. In large schools a full-time equipment room attend-

ant should be employed. Care and repair of equipment, as well as responsibility for checking it out for student use, is such an important item in saving school funds, as well as in providing a good learning situation, that a caretaker on a full-time basis is justified. The equipment room attendant should have among his duties the following:

1. Supervision of towel and equipment rooms
2. Issuance of all athletic equipment with modern check-out procedures. He should be provided a schedule of needs for each class so that all field and gymnastic equipment is ready for use.
3. Supervision of immediate area of dressing rooms, in co-operation with instructors. This involves supplementary clean-up and sanitation as needed.
4. Handling of towel and equipment laundry services. If the school laundry is properly

placed in the equipment room, the school will be saved a considerable sum annually by having the attendant handle the laundry himself.

5. Equipment numbering, storage, repair, and maintenance
6. Construction of certain equipment items
7. Inventory of equipment. He is accountable to the school for all equipment placed in his charge.
8. Supervision of students in matters of locker housekeeping, cleanliness, lost and found items

Schools that do not have a regular equipment room attendant should make some provision for checking out equipment and towels, laundry service, and for supervising the locker room between dressing periods. Certain schools have a student service point system, under which students assume responsibility under supervision of



It may be necessary to have student first-aid assistants on duty during the after-school sports period. Instruction in first aid should be part of the high school curriculum.

the teacher in charge. Other schools employ students for such services. These systems provide leadership and on-the-job education for interested students. But under no circumstances should students substitute monitoring or clerking for participation in physical education activities.

### Provision of Health Services

Definite working policies must be set up and fully understood by all those working in physical education and in the school health service. The health status of the students must be ascertained in order to prevent injury and to provide for maximum growth and development. If the health record is carried over from the elementary school to the secondary school, thus providing pertinent health information to the school nurse, the health co-ordinator, and the individual teacher, programs can be initiated immediately that will help and not harm students.

When complete health information is not forwarded to the secondary school for a student, his health status should be determined at once. Some schools ask for reports from the family physician; other schools have the services of the school physician at the very first of the year to examine all new students, those with recent disabilities, and those with a health history which merits close follow-up. If the health record is not complete for all students, and they have not had physical examinations within the past year, physical education teachers should help set up a procedure for a health appraisal.

A brief questionnaire or record card providing information on recent communicable diseases, operations, and accidents, along with complaints of ill health, is used in many schools to discover students who give indications of the need for special attention. Vigorous activity for these students should be curtailed until their exact health status is known. If the student has some physical impairment, it may regulate much of his daily

living. This health status record may indicate limitations of the academic load as well as of physical and extracurricular activities.

Various procedures may be used in dealing with the students who have special health problems. They may immediately be assigned to appropriate modified activity or posture classes, with instruction given on an individualized basis. If it is impossible to arrange a class for posture or modified activity, then the teacher should set up, along with the activities of the rest of the class, suitable activities, posture exercises, or rest for those who need posture correction with little or no vigorous activity.

The school nurse should have a close working relationship with all physical education personnel. The time necessary for the health examination may be taken from physical education or group guidance class time. Certain follow-up work after the examination is the responsibility of the physical education teacher. A definite policy relative to first-aid treatment and the procurement and use of medical supplies in the gymnasium as well as for all other classrooms should be established.

The physical education teacher should know and follow the school procedure in dealing with accidents. He should know what first-aid procedure is to be followed; to whom the accident should be reported; who is to notify the parents; to what doctor or clinic the student is to be taken; what kind and number of reports are to be filed; and what follow-up is to be done, both for the student and for avoiding future accidents of the same nature. The California State Department of Education bulletin, *Education for Safety*,<sup>1</sup> which was widely distributed to schools, contains valuable information on safety practices in schools.

<sup>1</sup> *Education for Safety. A Handbook for Teachers.* Consisting of Material Prepared by the California Curriculum Commission's Workshop on Education for Safety at Claremont College and a Report on "Safety in the Physical Education Program," by the California Interscholastic Federation. Bulletin of the California State Department of Education, Vol. XVI, No. 5, December, 1947.

## Varsity

The  
State  
and na-  
tion look  
to our Cali-  
fornia school  
program of physi-  
cal education in  
admiration and hope  
for leadership in the  
planned progression—kin-  
dergarten through junior col-  
lege. At the earliest possible

EXTRA- grade skills are introduced. Habits MURALS

and attitudes taught correctly, from  
the start, leave less to correct later. We

believe that boys and girls should learn to

work and also to play together in a normal

and fine relationship. We believe that young

people and adults enjoy most those activities in

which they have attained a degree of skill through

instruction early in their school experience. A wide

variety of sports and activities is offered to ALL pupils,

who are encouraged to select those they enjoy most for

after-school participation—intramural, varsity teams, or in-

dividual activity. Here especially must carry-over activities be

encouraged, such as handball, golf, swimming, archery, bait and

INTRA- fly casting, volleyball, rhythmic activities, hiking, shuffleboard, horse- MURALS

shoes, horsemanship, and similar activities. Intramurals provide for

immediate use of the skills taught or motivated in class. Varsity sports,

based both on class work and intramurals, have great appeal both to players

and the spectators. Here the lessons taught in co-operation, sportsmanship,

team work, and loyalty receive their greatest test, and usually result in a much

improved attitude for useful citizenship. The physical fitness program—so impor-

tant in war years, but equally as vital in all years—must be improved and integrated.

The slogan, FITNESS FOR LIVING, must be based upon participation in "gym" and

"swim" five days every week, and receive the same recognition in credits as other subjects.

Here basic conditioning, testing, gymnastics, apparatus work, tumbling, combative games,

trampoline, rope work, and other activities are stressed along with practice of sports skills. The

California philosophy is well represented by this triangle, with regular physical education classes

forming a base from which emerges the broad intramural program—topped by all the varsity teams.

It is not a question of which is the most important. All are essential to the modern program. Proper

administrative planning is vital if we are to be assured of success.

## Physical Education Classes

## The Physical Education Pyramid of Proper Balance

### III

## FITNESS THROUGH THE SPORTS PROGRAM FOR BOYS<sup>1</sup>

COMPETITION today is keen and sometimes bitter; there is little compromise. The transition from sheltered home and supervised school to the realities of life is often abrupt and difficult. There is now firm conviction that sports and play make one of the most satisfying and lasting contributions to the adjustment required in this process. By way of introduction, a brief consideration of what happens to typical adults, products of our homes and schools, might be appropriate.

In this complicated scheme of things called civilization we are seldom ourselves. We are often tied in mental knots because we cannot, as our ancestors did, fight for what we want or cry out in a loud voice against what we do not like. We keep still, usually, about what we think and feel, and the attics of our brains become stored with fears, jealousies, disappointments, and unsatisfied yearnings. We may either recognize their presence and get rid of them, or lock the attic door and let them leak out in what psychologists call inhibitions, complexes, and maladjustments.

Those who value mental and physical poise cast about for a way to take care of these mental holdovers. Most people find that taking part in sports is the best way. Competitive exercise is a splendid safety valve. When a man plays a game—any kind of game—the way it should be played, he lets himself go. He suffers disappointments and experiences triumphs. Inwardly he applauds his good shots and growls at the bad ones. He “lays” on every ball as hard as he wants to. At the same time he works off his pent-up venom against some supposed grievances in life. His complexes melt away with his perspiration. For a little while he is primitive, with the outlets of a primitive man. He is even able to communicate his state of mind to the bleachers.

When a man's game is over, whether it be tennis, handball, football, or what not, he lies down in panting relaxation. He has discharged his mental bogies. He can be as bereft of complexes as an African native is of clothing. His world of troubles dissolves in thin air.

This is what active sport can do for a person. It can be an outlet and a normalizer. A person who keeps active in his play need seldom fear a nervous breakdown. Breakdown results from a state of nervous muscle tension. In the days of our caveman ancestors, when any cause for worry immediately translated itself into action, breakdowns were unknown. Now we meet most of our emergencies with headwork—at any rate, without much use of muscles. We continue, day after day, storing up nervous tension which is communicated to the muscles to get them ready for the physical emergency which never comes. This provides no follow-up of relaxation after muscle effort such as always came to the caveman, to whom everything spelled movement either in the direction of fight or flight. Finally the accumulation gets to be too much and we have a breakdown, or breakup, or blowup, or whatever we choose to call it.

Everyone can avoid breakdowns. Physical play, even short periods of it, will discharge the tension that is caused by the complexities of present-day living. Unless we participate in such activities, our emotional balance is disturbed time and time again. We must then turn to exercise, which will get us out of our trouble and keep us from developing other complexes. The ability to play, the habit of playing strenuously, the desire to pit oneself in play against an opponent or against nature itself are the best safety-valves that education can offer to the healthy boy as he prepares for life's battles.

An active sports program designed to help boys to select sports and recreational activities adapted to their needs is an essential part of the physical fitness program. In fact, a community-

<sup>1</sup> Portions of this chapter are based on Louis E. Means, “Play Them Out,” *Recreation Magazine*, XL (August, 1946), 280, and Means, *The Organization and Administration of Intramural Sports*. St. Louis: The C. V. Mosby Company, 1952 (second edition).

wide program of sports and school recreation is one of the educational essentials. It is the testing ground of reality. It is life itself. In a modern world full of maladjusted, inhibited, worried, and fear-ridden individuals, youth will profit tremendously from a training and an experience that uses pleasurable activity to teach one how to relax, how to get along with other people, a greater respect for the opposite sex, and wholesome skills that are never quite lost, to be called upon again and again to relieve the tensions of adult society.

### OBJECTIVES OF THE SPORTS PROGRAM FOR BOYS

The objectives of the sports program are those of the physical fitness program in general, but the sports program has much more to offer than can be secured by a program of physical education classes alone. The following paragraphs emphasize the objectives of a good sports program.

1. *To promote physical health and vigor.* It is almost a truism in America that regular physical exercise is rarely indulged in without organization and without competition. Americans today gravitate to the passive types of work and recreation unless inviting programs can divert this trend at the school age. Yet such regular exercise is necessary for the proper functioning of the human body. All physiologists tell us that increased activity of heart and lungs serves to eliminate waste products of the body and to hasten rapid assimilation of nutritive food elements.

It should be emphasized that physical education and health are not synonymous. Sports, as conducted in many schools today, are often sporadic and too unregulated to secure the best health outcomes. The best results are noticeable in instances where preliminary conditioning is required for the more strenuous activities, or where students take an active pride in keeping in condition for competition in order to guarantee their best performance at all times. This will not be possible unless the student has opportunity for frequent and constant competition throughout the year. Constant participation in

intramural and extramural sports is very important to the nonvarsity boy if he is to be afforded a somewhat equal chance at attaining physical fitness as that offered the athlete who takes part in interscholastic events. Brammell recommends "the more active use of the intramural sports program in launching health habits upon life careers."<sup>1</sup>

2. *To develop sports skills and fundamental co-ordinations.* It is the function of the physical education program to teach, through its many possible techniques, sports skills and fundamentals, thus enabling the student to approach the intramural or laboratory part of the physical education program with desires and interests which have been sharpened by the teaching. It is also the function of physical education to develop greater co-ordination, strength, fitness, and prowess through its activities. Assuming that class procedures partially accomplish these objectives, we can safely say that intramural sports provide an opportunity for further perfection and use of these skills, thereby increasing muscular co-ordination and bodily prowess.

Larson<sup>2</sup> found that 40 to 50 per cent of the Army Air Force trainees in the last war did not have a sufficient degree of skill in any sport to desire competition. Recognizing the values through sports of increasing fitness, co-ordination, strength, and quick reaction, the AAF program was heavily built on the teaching of sports skills and intramural participation. Larson also pointed out that systematic retrogression in physical fitness accompanied increase in chronological age of AAF trainees, as disclosed by the testing program. He felt that this was largely due to lack of recreational influence in the school and home before induction.

Every boy, to attain optimum physical, intellectual, and emotional development, must have several hours of enjoyable, vigorous, physical activity every day. The physical education class period does not satisfy this need. It does not give

<sup>1</sup> P. Roy Brammell, *Intramural and Interscholastic Athletics*. Bulletin 1932, No. 17, Monograph No. 27. Washington: U. S. Department of the Interior, Office of Education, 1933.

<sup>2</sup> Leonard A. Larson, "Some Findings Resulting from the Army Air Forces Physical Training Program," *Research Quarterly*, XVII (May, 1946), 144-64.



opportunity for sufficient practice in things taught or self-directed natural use of them as an integral part of daily living. The class period is essentially teacher directed. It is a period of work and play specifically controlled and directed along predetermined lines. The intramural program partially fulfills the total activity needs of the student and motivates further satisfactory types of activity. It provides for the development of desirable sports conduct which will affect behavior in such sports away from school.

As proof of the value of a broad and complete program of sports and physical activities, Rath<sup>1</sup> found that high school boys who were placed in a control group and given well-planned sports and activities achieved superior physical stamina and strength as contrasted with students who selected ROTC and military training only, as measured by McCloy's strength test.<sup>2</sup>

### 3. *To promote mental health and efficiency.* William James once said

Even if the day ever dawns in which muscular vigor will not be needed for fighting the old heavy battle with nature, it will always be needed to furnish background for sanity, serenity, and cheerfulness in life, to give moral elasticity to our dispositions, to round off the wiry edge of our fretfulness, and to make us good-humored and easy to approach.

Intelligent use of leisure time and participation in regular recreation contributes to mental health and efficiency in high degree. A large number of research studies could be used to document the closer relationship which exists between wisely selected and consistently used physical activities and scholastic attainment. No one has offered proof that such activity has a deleterious effect on scholarship.

Physical fitness has some direct moral implications. Moral and spiritual actions are often conditioned by the degree of mental and physical adequacy a person has reached. Generally speaking, a boy or girl in best physical condition and happy mental state is able to resist temptations that would be too strong for a physically weak,

frustrated, unhappy individual. The draining of surplus energy through wholesome sports must figure as one of the real contributions of a sports program. When a boy's zest for life has been expressed in vigorous, pleasurable physical activity, his desire to participate in many of the harmful activities so common to modern society is eliminated.

### 4. *To prepare youth for wise use of leisure time now and in the future.* John Dewey has said

A new concept of the use of leisure has to be created; boys and girls need to be instructed so that they can discriminate between the enjoyments that enrich and enlarge their lives and those which degrade and dissipate.

Schools have made progress in the use of recreation and sports as a solution to the problem of present and future recreational needs. However, the statistics of actual program participation of the entire student body in secondary schools show that only a small per cent of schools have actually developed a program that is meeting the recreational objectives of physical education. The schools must shoulder the responsibility of developing habits and interests in students which will enable them to use their leisure time to the best interests of themselves and society. The student should, on leaving high school, have avocational interests and be prepared to pursue them. The modern intramural program is a splendid vehicle for in-school avocational experience in a wide variety of sports and activities.

The following excerpts emphasize the various objectives affecting wise use of student leisure time.

Probably in no phase of educational endeavor is the need greater to fit the high school programs to the individual than it is in the case of adequate and satisfying use of leisure hours. In no phase of educational endeavor is there need for greater variety; from individual to group activity, from direct participation to intelligent spectatorship; and from art to woodcraft. These needs embrace developing and matching of skills in scores of various activities. . . .

Emphasis should be given to the carry-over value of such leisure-time activities as those listed above, as well as to their value before the pupil leaves high school. The bridge between school and adult values might be built

<sup>1</sup> Emil Rath, "A Study of the Effect of Different Physical Education Programs on the Strength Index of Ninth-Grade Boys," *Research Quarterly*, XIII (May, 1942), 169-77.

<sup>2</sup> C. H. McCloy, *Tests and Measurements in Health and Physical Education*. New York: F. S. Crofts and Co., 1939.



by the gradual induction of the pupil into related community leisure-time activities as he approaches the end of his school life.

Too much emphasis cannot be placed upon activities of an individual nature as against group activities. Much of our free time is spent as individuals and not as members of a group. Out of all must come a feeling of a pleasurable and satisfying experience. There can be neither failures nor merely passing marks, since each fails to convey a true sense of satisfaction.<sup>1</sup>

It is interesting to note that the survey made by the American Youth Commission in 1938 found that "constructive use of leisure time" was one of the ten greatest problems confronting youth in America.<sup>2</sup> It is also significant that very few varsity sports continue a participating interest after school days are past. Intramural programs can provide a great number of sports that will build permanent interests for satisfactory adult living. This is more easily possible in the intramural sports program since great specialization is not the objective. We are well aware that adults rarely become interested in sports and recreational activities unless some fundamental skills have been obtained in school days. Once we have developed in the student a spirit of play and the ability to relax, we have given him an outlet which will continue to demand expression all through life.

5. *To further the socialization of youth.* One of the most important objectives of intramural sports is to utilize the socializing value of group competition with many students throughout a three- or four-year program in many activities. Often the newly entered freshman is "lost" for months, and he yearns for contacts and recognition from his fellows. The chance to know others of similar age is vital to his happiness and well-being. In athletic competition the student learns to evaluate the characters of others, to gather his own self-assurance and determination, and to know the deeper meaning of group loyalties and responsibilities. He learns to sublimate self in the best interests of the group, yet to retain the best of individual assertiveness and leadership.

<sup>1</sup> *Life Adjustment Education for Every Youth*. Washington: Federal Security Agency, Office of Education, 1948.

<sup>2</sup> Howard M. Bell, *Youth Tell Their Story*. Washington: American Council on Education, 1938.

In this program the smallest and youngest boy often finds himself superior in skill in some activity to the strongest and most capable varsity athlete, one who has temporarily forsaken his field of specialty in his quest for skills and experiences in other sports. Such an experience levels barriers and often suppresses dramatically and promptly feelings of superiority.

### DEVELOPING A SPORTS PROGRAM FOR BOYS

The intramural, extramural, and interscholastic sports program and youth service activities stem largely from the instructional program of physical education. These activities are the contributions of the physical education program to the recreational aspects of school life. Indeed, the instructional program is incomplete without this added laboratory of participation on a voluntary basis. Every California secondary school should provide opportunity for every student to participate in a wide range of intramural sports. Local problems may offer difficulties, but ways can be found to serve the needs of all students in every situation. Because every student should have an opportunity to participate in sports in addition to his daily class period, and because the success of these programs depends on the quality of physical education class instruction and degree of motivation and stimulation, physical education teachers should carry the responsibility for the intramural program.

Probably never before has there been so great a need to develop in students the spirit of competition, courage, morale, leadership and follow-ership, and the will to win. Athletics provide unusual opportunities to develop these characteristics, and can contribute much to total fitness. Too often emphasis has been placed on varsity athletics for relatively few participants, rather than on a broad-based intramural program of sports for all youth. It is suggested, therefore, that schools and communities should re-evaluate their program of interscholastic sports with a view to providing maximum participation for as many as is practicable and giving interscholastic athletics its place in a well-balanced physical education program. A planned program of extra-

mural athletics will greatly enrich the total program for all students.

The sports program encompasses the physical education class activities, intramural sports, extramural events, and interscholastic athletics. In the following paragraphs the main points to be emphasized in regard to each of these parts of the program are discussed.

### **Physical Education Class Activities and the Sports Program**

The well-rounded physical fitness program includes a soundly devised class instruction program that is adaptable to each new situation. One weakness of the American sports program is its emphasis on running and lower body development, with very little corresponding strengthening of the upper arm and shoulder girdle musculature. Inclusion of a variety of instructional materials, with planned progression, in the physical education class is recommended. In the well-organized program of instruction every student, including the varsity athlete, participates in the regular classes to secure all-round development. This eliminates the necessity for varsity teams to spend time in squad conditioning exercises, for such exercises are a part of the physical education classes. The program of instruction must include more than touch football for varsity football players, more than basketball for basketball team members. The class provides ample opportunity to demonstrate and teach all skills, introduce new activities, correct individual weaknesses, and periodically test progress. The course of study must provide instruction to reach all objectives that are attainable, and for the present it must emphasize the physical aspects of fitness.

### **Intramural Sports and Activities**

With the rapid growth in the intramural sports program, there has been increasing effort to set standards for its improvement. That it has now become a tremendously important part of the educational scheme can no longer be doubted. Some educators are even going so far as to suggest that interschool athletics be eliminated, and that intramural sports be substituted to allow all students to take part. It would seem that the stu-

dents would best be served, however, by continuing both phases of the sports program, with the intramural program open to the entire student body and with interscholastic athletes representing the peak of skill and specialization. Interscholastic athletics have a part to play in crystallizing school spirit through representative teams. But it goes without saying that neither program should be allowed to dominate the other to the point of unfair division of facilities and leadership. The central emphasis should be a program for the maximum welfare of the entire student body. This implies a close correlation between the required physical education classes and the laboratory experience of intramural sports. Although the required program should not include intramural competition, it should be a preparation for it.

Intramural sports should be carefully integrated with the total physical education program. A definitely graded, planned, and carefully supervised physical education program will be implemented and enriched by intramural activities. A well-rounded program of physical education forms a basic structure out of which grow intense and constant desires for physical and social group expression, best attained through the medium of informal recreation, intramural sports, outing and coeducational clubs and special events, and the varsity sports program.

### **Extramural Sports**

Extramural sports, offering a medium for competitive experiences in addition to the class instruction and intramural events, will claim the interest of many boys. It is the intermediate step which sets the stage for an expanded interscholastic program. In an extramural program the various individual and team players are provided occasional opportunities to meet similar teams and individuals from other nearby schools for competitive sports in which schools, as such, are not pitted against each other. Many schools have added new interscholastic sports after proper development of interest first through intramural and then through extramural competition.

Extramural sports are growing in popularity over the nation. Emphasis is on participation in

great numbers of individuals from several schools, not on victory for a school. The program is particularly adaptable in cities having more than one secondary school, where travel is at a minimum. Coaching may be dispensed with. Elaborate equipment and awards are unnecessary. The meet or sports day should be an informal, pleasurable experience.

There are many ways in which the extramural program can be organized. Two plans are suggested here:

1. Individuals, dual partners in doubles, and teams are paired from two or more schools, and games and matches between them are arranged. Sports and events that lend themselves to such use are the following:

Archery	Paddle ball
Bowling	Shuffleboard
Flag football	Table tennis
Free throws	Tennis
Golf	Volleyball
Golf specialties	Water basketball
Handball	Water polo
Horseshoes	

2. One or a few sports are selected and players from two or more schools get together for competition. In this type of extramural event, emphasis is centered on large numbers of participants from each school in each event. Some activities that may be used are the following:

Archery	Push ball
Bowling	Relays
Cross-country	Tennis
running	Track and field
Giant volleyball	events
Horseshoes	Volleyball
Mass soccer	

A fitting climax to this kind of a sports event would be a luncheon or potluck supper, which has great social value.

### **Interscholastic Sports**

There is unanimity of opinion that interscholastic sports, properly conducted, make a tremendous contribution to those fortunate enough to participate in them. Effort should be con-

tinuous toward providing opportunity for this experience for more and more boys. Emphasis on the more rugged sports is indicated if fitness is to be attained. Yet many boys will not be able, due to limitations in physical ability and in skills background, to take part in the more rugged sports. Therefore, all opportunities for competition and participation should be continued in every possible individual and team sport, even though the immediate contribution to physical fitness may not be so obvious. Whenever possible, squads should be increased rather than cut. More leaders will be needed for these larger squads. Competitive opportunities should be provided for as many teams as possible.

Some practices which will increase the numbers participating and avoid difficulties due to restricted transportation facilities are the following:

1. The number of teams representing a school in a given sport may be increased. Instead of having one team compete, arrangements may be made so that three or four teams compete.
2. Schedules may be arranged so that a school will play another school more than one time in the same season.
3. Schedules may be arranged so that only conveniently located schools will be played and the distance traveled will be short.
4. Leagues may be formed of teams representing schools in one geographical area and all games played within the league.

By way of illustration, a combination track and field meet may be arranged to replace the single meet. The time schedule of competition will show the 100-yard dash for varsity, or Class A teams, followed by the 100-yard dash for reserves, or Class B, C, D teams, and finally, if there are still more candidates for this event not selected to fill the lanes in these races, exhibition heats of the 100-yard dash are run for all the extra beginners. This procedure is followed throughout the meet. It takes little more, if any, time to run off the meet, since the extra heats are being run during the usual time lag between

varsity events. Thus every boy has the chance to show. In this way large squads of in-training athletes can be developed each season.

It is believed that important criticisms of interscholastic athletics may be met by expanding the program rather than curtailing it; by giving boys more opportunity to participate in rugged activity rather than less. But even after all these challenges to an expansion of the interscholastic program have been met, the secondary schools will not have made a complete contribution to democracy in sports. There will still remain many boys who cannot be reached by an increased and accelerated interscholastic program alone. This task must be shared with intramural and extramural sports actively promoted and led by interested personnel. Whether a sport is "major" or "minor" depends upon the needs, interests, and abilities of the participant.

### SELECTING ACTIVITIES FOR A SPORTS PROGRAM

The selection of activities and the development of a complete sports program should be given careful study by each physical education

director and his staff, working with student leaders and remaining fully cognizant of students' needs and interests. A number of selected references are listed at the conclusion of this guide from which appropriate activities and sports can be chosen. In addition, the outline of sports that follows should guide the director in selecting team sports involving active participation as well as dual and individual sports and activities of all types. Selection must, of course, be predicated upon providing a program for all students, taking into account local problems of leadership and supervision, facilities, and scheduling.

It is suggested that physical education teachers in each school give careful thought to a division of possibly three categories of sports and activities, as follows:

1. Activities making the greatest contribution to physical fitness
    - a. Sports requiring minimum of faculty supervision
- |           |             |
|-----------|-------------|
| Bicycling | Hiking      |
| Handball  | Paddle ball |



Flag football is rapidly gaining in popularity for use in physical education classes and intramural games. The roughness of tackling and tagging is eliminated and no special equipment, such as shoulder pads or helmets, is required.

Paddle tennis	Skiing
Roller skating	Squash
Rowing	Tennis

b. Sports requiring greater organization and administrative leadership

Baseball	Lacrosse
Basketball	Pentathlon
Boxing	events
Crew	Soccer
Cross-country running	Softball
Decathlon	Speedball
events	Swimming
Football, flag	Track, indoor
Football, six man	Track, outdoor
Football, touch	Tumbling
Gymnastics	Volleyball
	Water sports
	Wrestling

2. Activities which are very important to a modern program, but of secondary importance and priority to the physical fitness objective

Archery, target or roving	Golf
Archery golf	Golf specialties
Basketball golf	Horseback riding
Bat ball	Rifle shooting
Bowling	Seven up
Football specialties	Table tennis
Free throws	Skeet
	Wiskit

3. Activities of social-recreational nature, very necessary in the total program to meet all objectives, but of minor importance for physical fitness

Aerial tennis	Darts
darts	Deck tennis
Bait and fly casting	Fly tying
Croquet	Horseshoes
Clock golf	Open house events
Corecreational archery	Roque
Corecreational dancing	Shuffleboard
Corecreational sports	Skish

## ADMINISTRATION OF THE SPORTS PROGRAM

### Leadership and Supervision

Leadership of the sports program is commonly vested in one of the following: the physical education director, physical education teachers, varsity coaches, members of the faculty not on the physical education staff, students, or a combination of these. There are many arguments favoring each of the various types of leadership control in the program. Likewise there are reasons why any one of these types might not be best in any given school. Local needs and problems must be taken into account. The physical education teacher may act as director, provided his time is not taken up too fully with class assignments. If sports planning and supervision is added to a full teaching schedule, either the class program or the sports program will suffer from inadequate administration. The same is true when the coach is asked to assume direction of interscholastic, intramural, and extramural sports; if he is given this duty, he must be allowed time for carrying it out in his daily program. The major share of responsibility for a sports program should not be delegated to a student leader or to a group of students. Student self-government is best appreciated and most successful when carefully guided by a director wise enough to utilize student assistance and co-operation to the limit. There are scores of ways to bring students into the program, both to lighten the load of the director and to give students the valuable opportunity to act in a position of responsibility. Some of these methods are described in a following section.

The program director should be a leader with unswerving zeal for the "sports for all" ideal. He should be enthusiastic in the promotion of sports for every student. His administrative duties and prerogatives should be clearly defined. Mutual planning between the director of the sports program, the athletic director, the coaches, and the physical education teachers is necessary for an equitable division of equipment, facilities, and staff time. The wise director will draw into leadership roles as many teachers who are not on

the physical education staff as possible. Their responsibilities might cover only a single tournament or league or perhaps they could carry responsibilities throughout the year. Most directors of sports programs devise ways of recruiting from students and faculty members an advisory council or committee to assist in the formation of policies, selection of events, and other administrative details. Selection of a student sports committee will assure the director of support and provide a democratic approach to the program. The faculty advisory committee may be separate from the student committee or both may be combined in one group.

### **Student Managers and Clerical Assistants**

As the program broadens to include great numbers of sports, leagues, tournaments, special events, and games, it becomes necessary for the director to organize a large staff of willing and enthusiastic student managers. Many underprivileged, crippled, physically handicapped, and younger boys have received great leadership experience through intramural managerial roles. A partial list of duties that can be delegated to student managers and assistants is the following:

- Act as team managers for all sports
- Handle card index point systems, cumulative cards for individuals and groups, and similar office details
- Take responsibility for keeping bulletin boards clean, fresh, and up to date with announcements and game details
- Act as field assistants
- Supervise field and court preparation for contests
- Act as bench officials, timers, scorekeepers
- Act as publicity men for intramural reports and stories in local, state, and school papers
- Officiate games. Special officiating clinics or meetings should be held to familiarize students with rules.
- Serve on advisory committees
- Handle storage, cleaning, issuing, stenciling, and maintenance of athletic equipment
- Arrange photographic displays of champions and of action scenes from games and sports.

One or more boys who are interested in photography may assume this responsibility. Arrange plaques and shields, possibly made in the school shop, on which to keep up-to-date displays of activities.

### **First Aid and Care of Injuries**

California schools are fortunate in having available a program of athletic accident insurance which provides coverage for boys participating in approved intramural as well as interscholastic sports. All participants in the sports program should have the use of the school training room and first-aid quarters. It may be necessary to have student first-aid assistants on regular duty so that an injury sustained during any part of the day will have immediate attention. Students involved in strenuous sports must have medical examinations and constant supervision, and all possible safety precautions should be taken. In some sports a prescribed compulsory number of practice and conditioning periods must precede open competition. Examples of this are cross-country running and wrestling. Procedures necessary to reach school physicians and obtain ambulance services in case of emergency should be clearly understood.

### **ORGANIZATION FOR COMPETITION**

It is well known to leaders in school physical recreation that many bases for selection of competitors must be used if every member of the student body in the secondary schools is to be reached. In the first years of the secondary school there is much sampling and enjoyment of team and individual activities of many kinds and an urge to participate in self-testing activities. The younger students find it easy to give their loyalties to improvised competitive groups, or to shift from one team to another and gain enthusiasm for different groups as each sport season approaches. This natural tendency to form cohesive groups is a cue to the ingenuity that can be used in establishing varieties of organization for competition.

In the ideal program the director and his staff of leaders will create competitive groupings in



such a way that boys will not be kept for long periods of time on one team that continually loses or on one that wins continual victories. Such a situation indicates faulty classification and team assignments. The director will also try to build the league structure so that no boy is eliminated from what may be a favorite sport after one or two defeats. By planning several types of leagues he can maintain interest, and the needs of boys can be served throughout the school year. It is a challenge to initiative and ingenuity to serve every boy in school as completely and as frequently as leadership and facilities will permit.

### **Sports in the Physical Education Class**

Only a small part of the intramural program should be carried on in the physical education class periods. As a method of interesting a large number of boys in the intramural sports program, however, it is quite defensible to introduce a few team sports in the classes. Almost the total enrollment can thus be included in the early rounds of league games. Leagues can be set up in each class, after preliminary skills instruction has been covered. Only a few early-round games should be played in class time, with round-robin winners emerging from the class to compete with

winners from other classes in a championship series.

It is important to prevent the use of facilities by a small portion of the class while the rest of the students become spectators, since a class period is designed primarily for instruction and participation. If the class period is used for all intramural games, it becomes impossible to give adequate instruction in a wide enough variety of physical activities each semester, and the class period changes from one of physical education to one of recreation alone.

The physical education class offers opportunities for recruiting participants for the total sports program, as well as for arranging dual and individual events and giving information to students on details of the program.

### **Special League Organization**

Sports leagues offer many ways to stimulate increased interest and participation in intramural programs. Teams for these leagues may be organized in the physical education class period or from sign-up entry blanks posted on a bulletin board or passed out to students in home rooms. Teams may use colors as team names or use the "jungle" idea, with animal team names such as



With a large recreation area, enough paddle-tennis courts can be set up at one time to play off the early rounds of a tournament in one afternoon. Many students can be included in the intramural sports program if such facilities are available.

Lions, Tigers, Wolves. The more unusual and bizarre the names, the more interest seems to evolve; Skunks, Anteaters, and similar appellations are popular. Bird leagues, reptile leagues, or leagues named for states, cities, colleges, professional teams, or college teams may be organized.

#### Interclass Competition

Every school should have some sports events organized on an interclass basis, but no program should be built on this basis alone. Smaller schools often find the interclass idea very workable. All-time records established by each class may be used as motivation.

#### Home-room or Session-room Teams

Since students retain identity with home rooms or session rooms for a semester or a year, loyalties are apt to grow, and these groupings form a good basis for organizing teams. The home room also offers a place where plaques and awards can be hung and preserved. No program should be built entirely on this or any other single system of classification or organization.

#### The Jamboree

The jamboree, or special event, is excellent as a supplement to other types of organization. For such an event students are invited to appear en masse at a given time. Captains are chosen on the spot, either by popular acclaim or some other method. They may be seeded or distributed according to ability. Teams are then selected either by lot, by rotating captain's choice, or some other fair method. A single or double elimination tournament drawing is then made, games are scheduled, and first-round games proceed without delay. A jamboree is excellent for Saturdays or evenings after supper, and it never fails to create great enthusiasm.

#### Other Competitive Units

Clubs which grow out of interest in specific sports have been organized in some schools and competition might well be based on such clubs. Other bases for organization might be teams or leagues representing Boy Scout troops or teams based entirely upon grade levels. In cities where grades are in sections, the section may be the

competitive group. Separate leagues and teams will serve all high school boys alike.

A division of competitive groups by residential districts is often practical. City ward maps might be used, or any arbitrary division to equalize competition can be selected. This plan is again a pleasing change from customary team formation, but care must be exercised not to fan prevalent neighborhood antagonisms into flame.

Social clubs usually are not satisfactory bases for competition, and organizing teams or leagues for competition from church or religious groups represented in the school community is not recommended. It is important that good, wholesome social and group outcomes not be jeopardized by the possibilities of bad feeling between groups. Therefore, local situations must be taken into account.

#### SCHEDULING SPORTS ACTIVITIES

If sports are to be meaningful they must permit frequent participation, and adequate time allotment for activities must be arranged in some way. A student who selects his favorite sports only to find that they can be enjoyed once every two or three weeks loses interest, and the real objectives of the program are not realized. Adequate time can be provided if all are willing for each phase of the program to move forward properly. While the problem is never easy of solution, a schedule can always be worked out by a careful study of available facilities, the demands made upon them, and staff help possibilities. Confining the program to one time period—for instance, the after-school period—will not guarantee a successful program. Utilization of all possible periods will be necessary to reach all the boys enough of the time to produce results.

All of the following periods have been utilized with success by schools: after school, evening, Saturday, the noon hour, before school, an activity period during the school day, vacations. Most important is the daily after-school period. If every possible facility is used every day, the bulk of the program will fit into this period. With the advent of night lighting of playgrounds, the twilight hours before dark and the



evenings after supper become important. Occasional sports nights should be planned. Every Saturday, especially the mornings, should see a full schedule in operation. The noon hour is fast becoming a favorite daily hour for organized activity. Wisdom in planning may also utilize the before-school hour, the activity period during the school day, or special activity club periods. Many schools are developing interesting special sports days interspersed throughout the year.

### MOTIVATION OF THE SPORTS PROGRAM

In the early stages of the intramural and extramural sports movement it was necessary to use many devices to promote student interest and to sell the merits of the program. Intramural and extramural sports have proved their worth in the modern school and now stand solidly on their own merits. The problem is one of utilization of every possible method of motivation to the end that all segments of the student body are reached. Unskilled students are often amazed to find that the sports program is designed for them also. Proper motivation will result in increased administrative efficiency and give the entire program added character and significance, together with the educational emphasis it deserves. Both results will be obtained through use of motivation devices such as the following:

1. Bulletins, printed or mimeographed, may carry frequent announcements. Stock printed bulletin heads may be prepared, and mimeographing may be done whenever desired. Use of varied colors will help.
2. Use of the bulletin board is a most important means of promotion and administration. The board should be attractive at all times, changed almost daily, and the art abilities of students used when possible.
3. A sports handbook, published periodically, can furnish permanent records in all sports, list annual champions, explain point systems, and give a complete informational index on all phases of the total program. Sometimes information about all phases of the physical education program is included.
4. Regular publicity should be developed for the sports program. This can often be done by a student staff. News stories can be written for the school paper, city or county newspapers, and other mediums.
5. Championship and permanent record plaques can be made by students in the school shops, artistically decorated and lettered, and hung in halls or lobbies where they will remain a constant source of pride in accomplishment and stimulation for participation.
6. Regular sports clinics can be conducted for both intramural and interschool sports, training of student officials, and general sports education of student body and faculty. School assemblies and meetings are occasionally used for this type of promotion.
7. Orientation lectures can be conducted for all incoming new students. Here all phases of the program can be outlined, literature can be distributed, and invitations can be given to participate. Interest-finding questionnaires can be utilized to start the program.
8. Other publicity methods that may be used are (a) special sports banquets and potluck luncheons; (b) radio programs; (c) special sports clubs, (d) honorary sports clubs, (e) frequently changed display signs about the school, and (f) permanent displays of framed photographs of activities, champion teams and individuals, and events of interest.
9. One of the best motivation devices for participation in sports is the provision of well-marked fields, prepared scoreboards, properly dressed game officials, and all the little embellishments that go to make athletic events outstanding and colorful.

Most of the detail work in promoting interest in sports can be done by students. In short, the entire success of the sports program will be in direct proportion to the ingenuity and interest of the director and his staff of student and faculty workers.

## IV

### THE COEDUCATIONAL PROGRAM OF ACTIVITIES<sup>1</sup>

A COEDUCATIONAL activities program is rightfully given emphasis in every modern secondary school curriculum. Fifteen years ago the Committee on Curriculum Research of the College Physical Education Association found that

A strong tendency is developing to emphasize, as a part of the physical education program, the type of activities that may be participated in jointly by both girls and boys, preferably of such nature that they can be carried over into after-school life as hobby interests.

Some experience indicates that the instruction in elementary fundamentals of activities is preferably given in segregated classes, and that boys and girls then are permitted to participate together in the intramural program after having mastered the preliminary essentials.<sup>2</sup>

In 1939 California was found to be one of only three states which had recognized the value of coeducational physical education activities as a part of the school's curricular offerings as evidenced by printed courses of study at the State level.<sup>3</sup> In the intervening years corecreation in the secondary school has come to be recognized as more and more important. Yet organization for social-recreational activity of this type has been untouched in many schools, and it is still necessary to reiterate the reasons for emphasis.

As the school prepares young people for academic pursuits and vocational efficiency, so should it prepare them for social life. An ability to adjust easily and gracefully to social situations entails the learning of certain accepted social customs and procedures. These must be practiced frequently in order that they may become a part of the personality of the individual.

Association between the sexes on an easy, friendly basis is essential to normal social life. Men and women meet in business, in religious groups, at social functions, and in the professions. They build homes together and work and play together. As adults, they are expected to get along with one another without difficulty or embarrassment. Yet unhappiness, mortification, and maladjustment is suffered by many adults because during their early years they did not have adequate opportunities to learn how to adapt themselves to situations and how to get along with persons of the opposite sex. The guardians of youth today sometimes forget that the ability to get along with others, especially those of the opposite sex, does not naturally emerge with maturity. Friendships do not develop in a vacuum.

Analysis of the social life of any community in this state or country suggests that a strict divergence into two isolated and radically different programs of physical education, one for boys and the other for girls, is unrealistic. It is no longer assumed that the sexes are so strikingly different in their social, psychological, and physiological make-up that they must be taught skills and permitted participation only when carefully segregated. By eliminating the isolationism in physical education, the school can help students to live more completely adjusted lives in the community. The program that is realistic contributes to the education of the student for a life which will be full of adjustments to the opposite sex. Happy friendships and marriages in adulthood are dependent on happy, wholesome relations in youth. It is agreed that there are essential differences between the physical needs and development of the sexes, and that no suggestion of identical physical education programs for them would be tenable. There are not sufficient differences, however, to warrant complete separation of the programs.

<sup>1</sup> Portions of this chapter are based on sections in Louis E. Means, *The Organization and Administration of Intramural Sports*. St. Louis: The C. V. Mosby Company, 1952.

<sup>2</sup> William Ralph LaPorte, *The Physical Education Curriculum*. Los Angeles: University of Southern California Press, 1938 (fifth edition, 1951).

<sup>3</sup> Louis E. Means, "An Analysis of the Present Status of State High School Courses of Study in Physical Education," M.S. thesis, University of Wisconsin, 1939.



As the final week of a volleyball unit, boys and girls can join classes for several days for corecreational volleyball. This provides a definite stimulus for learning the rules and skills of the game.

Another strong factor in favor of school leadership in coeducational activities is the competition coming from commercial interests, some of which is not desirable. People are becoming more dependent on commercialized recreation, especially in communities where the school has not seen fit to accept leadership in corecreation. This was clearly disclosed in a survey made several years ago by the Chicago Recreation Commission.<sup>1</sup> The figures quoted and observations made in this excellent contribution to recreational research are challenging and should be studied carefully by all leaders in the field of education. Any type of organized program which will replace questionable forms of commercial recreation with wholesome, supervised social-recreational opportunity will be a great step forward in happy social adjustment of youth.

### ORGANIZING AND ADMINISTERING A COEDUCATIONAL PROGRAM

Vital to the success of the coeducational program in physical education is the establishment of clear understandings and working arrangements between the boys' and girls' physical edu-

cation departments. Plans must be developed and executed jointly. Together the directors and their staffs must study the use of facilities, student interests, and scheduling, co-operating in working out a program that will give proper balance and weight to physical and social recreation in the total school curriculum. The school administration must be involved in the planning, and teachers must be able to rely on unqualified support from administrators. This support will be more easily obtained when it is apparent that the two departments have a common approach to this educational problem.

There are many ways by which the coeducational program can be organized within the physical education curriculum. It is not desirable that any one plan be adopted to the exclusion of others. In some schools several methods may prove satisfactory, and the use of more than one plan may give added weight and interest to the program. Some procedures that have been found effective are briefly outlined in the following paragraphs.

#### Elective Courses

In a school that provides elective courses for seniors or for juniors and seniors, a class in coeducational activities can be one of the electives.

<sup>1</sup> *Commercial Recreation*, Vol. II of Chicago Recreation Commission, *The Chicago Recreation Survey*. Chicago: The Commission, 1937-40 (5 vols.).

Such a class meets daily and utilizes a variety of activities throughout the school term. There should be joint responsibility of both men and women teachers. The class meets for all activities, including roll call, and in all kinds of weather, adapting the activity to the weather when necessary.

Class size influences the choice of activities; a large class can be organized to use more than one activity at a time on a rotation basis. For instance, table tennis and badminton can be taught together, with different groups participating in practice play or in tournaments. Suitable activities are swimming, badminton, table tennis, archery, golf, bowling, croquet, aerial darts, deck tennis, handball, tennis, paddle tennis, horseshoes, volleyball, softball, and square, folk, and social dancing. Activities can be grouped together as facilities permit. If facilities for swimming or bowling, for instance, are not available at the school, field trips can be arranged to a nearby pool or bowling alley.

Instructional capabilities of the teachers will vary with each activity. In some cases the man will assume the leading role, in others the woman will take the lead. In a dancing class, for instance, the woman might take the more active instructional role, with the man handling the records and record player, acting as a partner, and maintaining the good behavior of students. The students must be shown that both teachers are in charge. The tendency for men to take less responsibility than women for corecreational classes should be overcome.

Evaluation of coeducational classes must have a social function. Progress cannot be accurately measured, but proper weight can be given improvement in social characteristics. The development of ability to participate in numerous activities with just enough skill for enjoyment is more important than the development of great skill in a few activities.

### **Weekly Coeducational Class**

In the "one-day-a-week" plan, students of various ages come together for coeducational play once each week instead of going to separate boys' and girls' physical education classes. Mixed

games and activities are used on this "coed day." Suitable activities are swimming, volleyball, softball, archery, dancing. Each activity should be pursued long enough to produce a feeling of accomplishment but not long enough for students to tire of it and lose interest. Some activities will require no class instruction, particularly if instruction has been given previously in separate classes. Fundamental instruction in archery, swimming, and dancing might be given.

Roll call is taken separately, and each teacher is responsible for his own class. Boys and girls are represented on both competing teams rather than a team of one sex competing against a team of the other sex. Occasionally competition between a team of boys and one of girls can be arranged, but after its sampling the students will probably find that mixed teams give greater enjoyment.

### **Final Week of Instructional Block**

Coeducational activity at the end of an instructional block in a specific activity offers a real recreational experience. As the final week of a volleyball unit, for instance, boys and girls can join classes for several days for corecreational volleyball. This provides a definite stimulus for learning the rules and skills of the game.

This plan requires careful preparation by instructors of both boys' and girls' departments so that all students will have had instruction in the fundamental skills before meeting in a corecreational game. Suggested activities might be volleyball, tennis, swimming, archery, golf, softball, and the paddle or racket games. It should be remembered that rules for corecreational games such as volleyball are in line with those of the girls' game rather than of the boys' game. To create greater interest, round-robin tournaments of mixed teams can be scheduled, or mixed doubles teams paired in the dual activities. A plan of this type can be set up for any grade level.

### **Coeducational Study Unit**

In many schools boys receive no instruction in dancing because it is difficult for them to take the part of girls and become "following" partners. By having a coeducational study unit, when boys



Swimming is one of the activities that lends itself to coeducational classes and intramural events.

and girls meet together for the entire unit, lasting several days or weeks, boys and girls can learn together many skills such as dancing. Other activities can be taught to both boys and girls together, such as tennis, golf, archery, and swimming. Short units can be set up in deck tennis, aerial darts, croquet, horseshoes, and similar activities.

#### **After-school and Evening Events**

In after-school hours boys and girls can play and dance together in a recreational atmosphere under the supervision of the school. Regularly

scheduled events of this kind are recommended even though any or all of the plans suggested for incorporating coeducational activities in the physical education classes are adopted. Such occasions can be sponsored and advised jointly by the two physical education departments, or the leadership can come from the students themselves. It can develop from plans set up by any school groups or clubs such as the girls athletic association, boys athletic clubs, or special interest groups. Such a program can offer a wide variety of recreational activities or sponsor a single activity at each event. Using the gymnasium for

evenings of games and fun will prove to be worth while and popular. Perhaps the coeducational class will want to provide the leadership for some of these evening or after-school events, thus carrying over from the regular physical education class what they have learned about corecreation.

Some ingenuity may have to be exercised to provide a variety of games for an evening. Hallways may be marked for shuffleboard courts. Dart games can be improvised in many places, and quiet areas may be set aside for table games. After a period of varied activity, the climax of the evening might well be some folk or square dancing. Faculty couples should be made welcome at these events.

### INTRAMURAL AND EXTRAMURAL SPORTS

The measure of success of any coeducational program within the physical education classes might well be the extent of participation that can be stimulated in out-of-school corecreation. Intramural competition, extramural events such as sports days and playdays, and the after-school and evening games and parties should be a normal outgrowth of the physical education program in the school. Activities that lend themselves to coeducational use are archery, badminton, tennis, bowling, dancing, golf, horseback riding, swimming, volleyball, and such winter sports as skiing or ice skating. Standards that govern competition between mixed teams or between individuals of different sexes are necessary. The following set of standards was prepared by a joint committee representing the California Interscholastic Federation and the National Section on Women's Athletics. It has been accepted by the Federated Council of the C.I.F., the California Advisory Council of the N.S.W.A., and the Executive Committee of the California Association for Health, Physical Education and Recreation.

It is recommended that these standards be used for both intramural and extramural coeducational participation. It is recommended further that extramural events be limited to sportsdays,

playdays, and tournaments in order that secondary schools in California may have a framework for increased coeducational activities as a normal outgrowth of student-body or student recreation organizations. There should be no use made of school team scores or championship awards, since this violates the spirit of these coeducational recreational activities.

#### A. SUGGESTIONS AND GENERAL STANDARDS FOR EXTRAMURAL CORECREATIONAL EVENTS<sup>1</sup>

1. Playdays and sportsdays may be held at any time during the school year.
2. Players should be grouped for practice and competitive play according to general level of skill.
3. Participants should have medical approval before participating. For girls, play during the menstrual period is subject to approval of the woman in direct charge of the group.
4. Written permission of parents or guardian shall be required for all students engaged in any extramural activities.
5. All practice periods and games shall be under the supervision of a certificated man and a certificated woman teacher.
6. Players shall be removed at once from a practice or a game if injured or excessively fatigued, or if they give any evidence of emotional overstrain.
7. Officials for games should be qualified, and women officials should be, if possible, those rated by the Women's National Officials Rating Committee.
8. Travel for games shall be limited to a small geographic area and a certificated man and woman shall accompany every traveling group. Wherever possible transportation shall be by school bus or licensed common carrier. Overnight trips may be made in exceptional situations.
9. Admission fees shall not be charged for any event.

<sup>1</sup> "Standards for Coeducational Activities for the Secondary Schools of California." Sacramento: State Department of Education, May, 1951. (Mimeographed.)



10. Awards shall be of a symbolic type, inexpensive, and should not be emphasized.
11. All publicity should stress the recreational and social values of play, and improvement in skill, as much as the winning of matches. Achievements of the squad should be stressed as much as those of individuals.

B. STANDARDS FOR SPECIFIC ACTIVITIES SUITABLE FOR COEDUCATIONAL EVENTS

### Archery

1. The maximum amount of shooting per archer on any one day shall be seventy-eight (78) arrows, equivalent to one Columbia Round and preliminary set of six practice shots.
2. If more than one event is shot per day, the minimum rest period between events shall be two hours.
3. At least four practice periods of one hour each shall be held before any archery contest.
4. N.A.A. rules shall be used. (N.S.W.A. *Individual Sports Guide*.<sup>1</sup>)

### Badminton and Tennis

1. The maximum number of matches on any one day per player shall be two, with a rest period of at least one hour between matches.
2. The official rules shall be those of the American Badminton Association and the United States Lawn Tennis Association. (N.S.W.A. *Tennis-Badminton Guide*.)

### Bowling

1. The maximum number of matches per player on any one day shall be one match consisting of no more than three lines.
2. Three practice periods shall be held before any match.
3. Rules found in N.S.W.A. *Individual Sports Guide* shall be used.

### Folk, Square and Modern Dance

1. Maximum number of hours of active participation per person per day shall be two.

<sup>1</sup> National Section on Women's Athletics, *Individual Sports Guide*. Washington 6: N.S.W.A., American Association for Health, Physical Education and Recreation (1201 16th Street, N.W.). Other N.S.W.A. guides mentioned in these rules may be obtained from this address.

2. Participation shall be on a demonstration or recreational rather than a competitive basis.

### Golf

1. The maximum number of golf matches per player on any one day shall be one, not exceeding eighteen holes.
2. At least four nine-hole practice rounds shall be engaged in before playing a match.
3. United States Golf Association rules shall be used (N.S.W.A. *Individual Sports Guide*.)

### Recreational Games

1. Maximum number of hours per person of participation shall be two.
2. Rules shall be those of the N.S.W.A. or the national organization for the specific game.

### Riding

1. The desirable length of time per rider per day and per week depends upon rider's condition, amount of experience, and type of riding being done.

### Swimming

1. Maximum length of time spent in water in one day shall be one hour.
2. The maximum number of events in which a student may participate is three.
3. Events for girls shall be limited to 20-50 yard free style, breast stroke, and back crawl, medley and free style relays, diving form events, water games.
4. No more than five practices and meets shall be held in one week (not more than two meets, and only one of these extramural).
5. At least five practice periods shall be held before participation in meets.
6. N.S.W.A. or A.A.U. rules shall be used. (N.S.W.A. *Aquatics, Winter Sports, and Outing Activities Guide*.)

### Volleyball

1. Maximum number of matches per day shall be two, or if playing is by time, two hours.
2. Rules shall be those set up by the joint committee of the United States Volleyball Association and the Volleyball Committee of the



National Section on Women's Athletics.  
(N.S.W.A. *Recreational Games and Volleyball Guide*).

## **Skiing**

1. Time per day
  - a. No more than four hours total in any day.
  - b. No more than forty-five minutes of any one hour should be spent without rest.
  - c. At any time the condition of the weather or snow is bad or dangerous, activity should be terminated.
2. Meets
  - A. Events
    - a. Maximum number of permissible runs per day shall be two; i.e., two giant slalom, two slalom, or one giant slalom and one slalom.
    - b. No "downhill," cross-country, or jumping events shall be scheduled or sanctioned.
  - B. Course
    - a. If both boys and girls are participating on the same course, it is recommended that the girls shall run first.
    - b. There shall be a forerunner of the course, to be a woman, just before the girls' events. The course should be set according to best racing standards.
  - C. Practice
    - a. It is advisable to have at least five days of skiing, including some instruction, prior to participation in meets. These days need not be in succession, but this will give skiers some conditioning and opportunity to check equipment and apparel. Meets shall be on "sports day" basis according to N.S.W.A. standards. A winter carnival plan is suggested in which there are events for all ability levels such as "bunny" races, giant slaloms, and obstacle races.

## **DEFINITIONS OF TERMS USED**

*Practice Periods.* The practice periods required prior to participation in extramural activities shall be held on the same number of different days as the number of practices specified.

*Sportsdays.* An occasional event in which several schools or organizations come together, often playing more than one activity, and each school or organization bringing two or more groups of players.

*Playdays.* A very informal type of competition, in which players of the participating schools or clubs are divided up among color teams. This type of event is particularly suitable for high school groups and for individual sports activities.

## **COEDUCATIONAL ACTIVITIES IN THE PREINDUCTION PROGRAM**

What do corecreational sports and activities contribute to the physical fitness program for boys about to enter the armed services? The answer to this question should be apparent. The young inductee, away from his home and a familiar social environment and thrown upon his own resources to find recreation while off duty, should benefit tremendously from the type of program here presented. The young man who is accustomed to find in the opposite sex a partner for active games and sports, for folk dancing and swimming and riding, for a host of recreational group activities, will carry over to his social life a wholesome attitude toward girls and will not be at a loss for healthy ways of enjoying himself wherever he may be. It is wholeheartedly believed that a corecreational program of activities in the high school may contribute immeasurably to happy social adjustment—a fit accompaniment to a strong, healthy, and well-conditioned body. Both are indispensable for abundant living in times of peace or war, for soldier and civilian alike.



## V

### ACTIVITIES FOR BOYS

THE PROGRAM of activities for boys outlined here drives straight to the core of the fitness attempt. It seeks results in the shortest possible time and is predicated on attaining immediate objectives. This does not necessitate the elimination of other desirable long-term educational outcomes of physical education. But the spotlight must be focused on three objectives: (1) the development of strength, endurance, flexibility, stamina, body co-ordination; (2) the stimulation of courage, competitive spirit, and group co-operation; and (3) the acquiring of physical skills that will contribute most to victory or survival in combat or active military duty.

The traditional objectives of physical education are usually classified under the headings of (1) developmental, (2) recreational, and (3) educational. The material included in this chapter is directed definitely toward the accomplishment of the first objective. It seeks to develop strong and rugged young men who can become excellent airmen, soldiers, sailors, or marines promptly after entering the armed services, or efficient workers in defense industries if they are needed for this service. It does not apologize for the emphasis on good, solid physical education which can challenge the agility, strength, and endurance of teen-age boys and is no less vital in preparation for future abundant living in peacetime. The recreational and educational objectives of physical education are important and should be stressed in a school program at all times. The urgency of the present situation makes it wise, however, to emphasize with increased fervor the developmental aspects of physical education.

In connection with a preinduction program for secondary school boys, the following points are emphasized:

1. Five periods each week of instruction in physical education activities for all high school students, using adequate indoor and outdoor facilities. Participation in driver education, military or cadet training, or music organization should not be permitted to serve as a substitute for instruction in physical education.
2. The continuous observation of all students by the teacher, and a more complete examination by a physician of all individuals who appear to deviate from the normal.
3. Increased emphasis on interscholastic, intramural, and extramural athletics for all students who can be stimulated to participate, and increased use of the more vigorous sports, involving teamwork and competition, in this program.
4. Stressing of the skills for protection and survival, such as swimming and water safety.
5. The use of vigorous, rugged conditioning activities, including cross-country and distance running, calisthenics, gymnastics, and combative activities.

Physical education activities described in this chapter are treated under six headings, as follows: (I) Conditioning Exercises and Drills, (II) Hiking and Running, (III) Combative Activities, (IV) Aquatics and Water Safety, (V) Gymnastics and Tumbling, and (VI) Sports and Games.

← The development of strength, flexibility, and co-ordination is furthered by rope climbing practice. Arm and shoulder-girdle muscles, in particular, benefit from this activity.

## I. CONDITIONING EXERCISES AND DRILLS

Conditioning exercises and drills can be adapted to indoor or outdoor use in limited space and require little or no equipment. Strength, flexibility, and endurance are quickly developed through regular use of these drills, especially if there is a steady increase in the number of times each exercise is performed.

To be most effective and to reach the objectives for which the drill is designed, it is imperative that the student follow a few general directions:

1. Do the exercises in good form, i.e., exactly as described, and with energy in each movement.
2. Learn each exercise thoroughly before going on to the next one. When the drill is memorized, then all the exercises should be done with a pause only to change starting positions. Sustained effort without rest or pause between exercises should be maintained.
3. Increase the number of times each exercise is performed, as capacities develop. When the exercises have been thoroughly learned, the



Conditioning exercises may be performed in the gymnasium when weather conditions do not permit outdoor classes. Boys are grouped here close to walls and apparatus to demonstrate five different exercises.

instructor will specify the number of times each one is to be performed in series.

#### FORMATION FOR CONDITIONING DRILLS

*Open order* (from closed order in a column of threes or fours). On the command, "1, Extend to the left, 2, MARCH," all raise arms sideward and run to the left until there are at least twelve inches between the finger tips of a boy and those of the next one. The boys on the right flank stand fast. On the command "COVER," all move to straighten lines from front to back and lower arms to sides.<sup>1</sup>

Following are set forth two conditioning drill series. It is strongly urged that the exercises be given in sequence as listed and that as soon as students have become familiar with them the exercises be referred to by name without demonstration.

### A. CONDITIONING DRILL I

#### 1. Straddle Hop

*Starting position:* Attention

*Count 1*—Jump with legs astride, swinging arms sideward and upward until palms are facing, approximately  $\frac{1}{2}$  inch apart over head.

*Count 2*—Return to starting position.

*Count 3*—Same as 1.

*Count 4*—Return to starting position.

#### 2. Trunk Bouncer

*Starting position:* Legs astride, hands on hips.

*Count 1*—Bend forward with a bouncing movement, touching hands to the outside of left foot.

*Count 2*—Touch ground between legs, also with a bouncing movement.

*Count 3*—Touch hands to the outside of right foot with a bouncing movement.

*Count 4*—Return to starting position.

#### 3. Modified Burpee

*Starting position:* Attention

<sup>1</sup> This is one of many ways of opening order. For another method, the following may be consulted: War Department Basic Field Manual FM 21-20, *Physical Training*, November, 1950, p. 19.

*Count 1*—Take squat rest position (full knee bend, knees inside arms, hands placed on ground at shoulder width).

*Count 2*—Jump to front leaning rest position (legs extended, body resting on straightened arms).

*Count 3*—Recover to Number 1 position.

*Count 4*—Return to starting position.

#### 4. Leg Shifter

*Starting position:* Squat rest, with left leg extended sideward.

*Count 1*—Shift position of legs so that right leg is extended sideward and left leg is in squat rest position.

*Count 2*—Return to starting position.

*Count 3*—Same as 1.

*Count 4*—Return to starting position.

#### 5. Hip Raiser

*Starting position:* Sitting, with hands on ground at side, palms down, legs and feet together.

*Count 1*—Draw feet back to the hips, raising knees.

*Count 2*—Raise hips, throwing head backward and looking upward.

*Count 3*—Lower to Number 1 position.

*Count 4*—Return to starting position.

#### 6. Rower

*Starting position:* Lying on back, with arms extended over head, feet together.

*Count 1*—Sit up and at the same time draw the knees to the chest, leaning forward and swinging arms to position as if rowing a boat.

*Count 2*—Return to starting position.

*Count 3*—Return to Number 1 position.

*Count 4*—Return to starting position.

#### 7. Push-ups

*Starting position:* Front leaning rest, legs extended, body resting on straightened arms.

*Count 1*—Bend elbows and touch chest to ground or floor.

*Count 2*—Straighten elbows and return to starting position.

*Count 3*—Same as 1.

*Count 4*—Return to starting position.



Conditioning exercises, grass drills, and ranger exercises may be performed on a turfed area of the recreation field.

### 8. Pelvic Twister

*Starting position:* Lying on back, arms side-ward, palms down; legs raised straight up with feet together.

*Count 1*—Swing legs vigorously to the left, touching the ground on the left side and keeping feet together.

*Count 2*—Raise legs to starting position.

*Count 3*—Swing legs vigorously to the right, touching ground on the right side.

*Count 4*—Return to starting position.

## B. CONDITIONING DRILL II

### 1. Bending Groaner

*Starting position:* Legs astride, arms sideward, palms upward.

*Count 1*—Swing upper trunk vigorously downward with hands reaching behind heels as far as possible, with a partial knee bend.

*Count 2*—Return to starting position.

*Count 3*—Repeat 1.

*Count 4*—Return to starting position.

### 2. Hip Bouncer

*Starting position:* Squat rest with left leg extending rearward.

*Count 1*—Reverse position of legs and feet with a bouncing movement, shifting right leg rearward and left leg to squat rest position.

*Count 2*—Return to starting position.

*Count 3*—Repeat 1.

*Count 4*—Return to starting position.

### 3. Trunk Twister

*Starting position:* Legs astride and fingers laced behind neck. Elbows held well back. Chin in.

*Count 1*—Bend trunk forward.

*Count 2*—Bounce trunk downward and at the same time rotate trunk to left.

*Count 3*—Bounce trunk up and downward and at the same time rotate trunk to right.

*Count 4*—Return to starting position.

**4. Burpee**

*Starting position:* Attention

*Count 1*—Come to squat rest position.

*Count 2*—Extend legs rearward to front leaning rest position.

*Count 3*—Bend elbows, touching chest to floor.

*Count 4*—Straighten elbows, returning to Number 2 position.

*Count 5*—Return to squat rest or Number 1 position.

*Count 6*—Return to starting position.

**5. Alternate 'Toe Toucher**

*Starting position:* Legs astride, arms sideward, palms upward.

*Count 1*—Bend trunk downward, twisting at the same time so that the right hand will touch the left foot.

*Count 2*—Return to starting position.

*Count 3*—Bend trunk downward, twisting at the same time so that left hand will touch right foot.

*Count 4*—Return to starting position.

**6. Leg Spreader**

*Starting position:* Squat rest, knees outside elbows.

*Count 1*—Spread legs outward as far as possible.

*Count 2*—Return to starting position.

*Count 3*—Extend legs rearward.

*Count 4*—Return to starting position.

**7. Sit-Ups**

*Starting position:* Lying on back, legs spread comfortably, fingers laced behind the neck, elbows spread.

*Count 1*—Keeping feet and legs on ground, bend forward, raising the trunk and touching the left knee with the right elbow.

*Count 2*—Return to starting position.

*Count 3*—Keeping feet and legs on ground, bend body forward and touch right knee with left elbow.

*Count 4*—Return to starting position.

**8. Leg Raiser**

*Starting position:* Lying on back, hands on hips, elbows on floor.

*Count 1*—Raise left leg straight upward.

*Count 2*—Lower to starting position.

*Count 3*—Raise right leg upward.

*Count 4*—Return to starting position.

**9. Trunk Lift**

*Starting position:* Lying on back, feet together, arms extended over head.

*Count 1*—Raise trunk upward, touching toes with hands.

*Count 2*—Return to starting position.

*Count 3*—Same as 1.

*Count 4*—Return to starting position.

**SUGGESTIONS FOR CONDITIONING DRILLS**

It should be noted that exercises are named so that they can be easily identified without daily demonstration. It is believed that by following these exercises in sequence, students will form a habit pattern. Also, the sequence pattern will fit in with an effective student leadership program. It is further suggested that exercises be counted in series. For example, in leading the drills the exercise would be named, followed by the number of times the exercise is to be performed in series, and counted as follows, stressing the number in the series that has been reached: "Straddle Hop—ten series—ready—exercise. 1 2 3 4, 2 2 3 4, 3 2 3 4, 4 2 3 4, etc." On the last number in the series the leader counts "10 2 and HALT" which automatically halts the group.

If it is wished to have the group count the exercise in cadence, the leader may say at the start of the exercise, "With class counting cadence, EXERCISE." When the Straddle Hop is completed, the class will finish the exercise at the position of attention. The leader then says "Trunk Bouncer—ten series." As the starting position of this exercise is different from attention, he says "Position—MOVE," thereby having the class move to the starting position, legs astride and hands on hips. After the class is halted the leader says "Re-cover," to move the group to attention. In order to keep procedure as simple as possible, it is suggested that the class be moved to attention after each exercise, then move to the starting position of the new exercise.



Other teaching suggestions are the following:

1. Demonstrate each exercise before asking the class to do it. Correct demonstration is more valuable than a lengthy explanation.
2. Give commands clearly and concisely. The tone of voice can help materially in stimulating the class to action.
3. Do not perform with the class all the time; be free to observe and correct faults. Observe from front, side, and rear of the squad, commenting on good performances, correcting faulty ones, urging all to better performance.
4. Encourage boys to improve performance by practice at home.

### C. GRASS DRILLS

The grass drill was originally used as part of the training for football squads to help them develop agility and endurance; it was carried out by groups or squads on a turfed area. The exercises are given in varied order, at the will of the instructor, and upon his command.

The formation for grass drills is open order, as described under Conditioning Drills, page 41.

#### PROCEDURE

"Front — Up — Back." At the command "Front," the boys fall to the ground quickly, face down, breaking the fall with the hands. On the command "Up," they leap to their feet and run vigorously in place. On the command "Back," they bend forward and roll back, breaking the fall by rolling to a seat, and lie on their backs. On the command "Front," they change to a position of face down, hands toward the front of the class. If the command "Back" is given when boys are face down, they squat through (i.e., support the weight on the hands and extend the legs through the arms and lie down). The order of the commands should be varied so that the boys cannot anticipate the next movement. Two to five minutes for this exercise is sufficient in one class period.

In order to round out the grass drill, additional exercises such as the following to develop the shoulders and abdominal muscles should be inserted at the will of the instructor.

1. **Sit-up.** Lie on back, hands behind the head, raise the trunk and twist so that the left elbow touches the right knee. Return to lying position. Repeat with right elbow touching left knee. Continue.
2. **Push-up.** Lie face downward, place hands on floor, shoulder width apart. Push up, keeping back straight so that weight is supported on hands and feet, arms straight. Return to starting position. Continue.
3. **Bicycling.** Lie on back, raise legs and hips high. Imitate movements of riding a bicycle. Movements should be vigorous, but not necessarily rapid.
4. **Legs Overhead.** Lie on back, raise legs upward and touch toes to floor behind the head. Return to position. Keep legs straight. Continue.
5. **Legs Right and Left.** Lie on back, arms sideward, palms down, legs raised straight up. Swing legs vigorously sideward right until legs practically touch the ground. Same to left.
6. **Front Leaning Rest.** Place hands on the floor in front of feet, bending knees. Thrust feet backward to front leaning rest position. Return to reverse order. Do slowly at first, and gradually speed up.

#### SUGGESTIONS FOR GRASS DRILLS

The grass drill does not demand the same precise performance which is required in the conditioning drill. It may be modified for use indoors. The instructor must change the exercise or stop the drill if the class seems unduly fatigued. Care must be used in adding exercises to the grass drill. Only a few should be selected, in order not to make the drill too strenuous. These exercises may be practiced individually or by groups.

### D. RESPONSE DRILLS

Response drills are valuable for the development of skills which are needed in combat. They develop an ability to respond accurately and quickly to commands. Response drills do not de-

mand the same precision which should characterize the conditioning drills. The following movements suggest some of the possibilities for response drills. Others can be used as desired.

The formation for the drills is wide open order, as described under Conditioning Drills, page 41.

1. **Go—Stop.** At the command "Go," the boys sprint forward as a football team does in running signals. At the command "Stop," they drop to the lineman's crouch. At "Go," they again sprint forward. This may be varied by the command "Drop" (i.e., fall to the ground face down as in grass drill). At the command "Right," they turn and sprint to the right at an angle of about forty-five degrees. If the command is "Left," they run to the left at a forty-five degree angle. "Go," in each case, means to sprint straight ahead. "To the rear" means reverse the direction. If the same sequence of commands is followed until a pattern is established, whistle signals may be substituted for the commands. The drill may continue for two to five minutes.
2. **Zigzag Run and Drop.** Upon the signal to go, the boys run fast at an angle of about forty-five degrees to the right and at the whistle signal zigzag to the left; on the next whistle, they drop to the ground. At the next whistle, they spring to the feet and repeat the zigzag run and drop. This continues until signal is given to halt (two to five minutes).

This is similar to the manner in which men advance under fire.

#### SUGGESTIONS FOR RESPONSE DRILLS

1. The boys should be taught how to "drop," first by breaking the fall with the hands and then without use of the hands.
2. The boys should know exactly what is expected of them.
3. The time between signals must be varied to develop the quick reactions desired.

### E. RANGER EXERCISES

Ranger exercises are so named because they are patterned after movements which ranger troops

use. Many types of conditioning exercises can be used in these exercises, which use a different, interesting approach.

#### FORMATION FOR RANGER EXERCISES

There are two formations for ranger exercises, depending on the number of boys.

- a. Single circle, if less than 30 boys
- b. Double circle, if between 30 and 60 boys

Each boy stands eight feet behind the one in front of him.

#### PROCEDURE

The instructor directs the boys to walk forward at a slow, relaxed pace, 80 to 90 short steps per minute, keeping the circle formation. The class does not walk in step. The instructor, standing in the center of the circle, calls the name of the exercise, demonstrates, and then gives the command, "Start." Immediately each boy starts to perform the exercise, continuing to move around the circle. After performing the exercise for about 10 to 30 seconds, the instructor commands "Relax," whereupon all resume the original slow walk. After 5 to 15 seconds, the instructor names and demonstrates a new exercise, and at the signal "Start," the class performs it. The time between exercises should vary with the nature of the exercise and the condition of the boys.

1. **All Fours.** Face down, on hands and feet. Walk forward.
2. **Bear Walk.** Face down on hands and feet, travel forward by moving the right arm and right leg simultaneously and then the left arm and left leg simultaneously.
3. **Leap Frog.** Count off by twos. At whistle, evens leap over odd numbers. At the next whistle, odds leap over even numbers. Repeat continuously, raising the backs higher and higher.
4. **Duck Waddle.** Assume the full knees-bent position, hands on hips. Retain this position and waddle forward. (Do not overdo this.)

5. **Squat Jump.** Assume the full knees-bent position. Retain this position and travel forward by short bouncing jumps.
6. **Indian Walk.** Bend knees slightly, bend trunk forward, arms hanging down until backs of hands touch ground. Retain this position and walk forward.
7. **Crouch Run.** Lean forward at the waist until the trunk is parallel with the ground. Retain this position and run forward at a jogging pace.
8. **Straddle Run.** Run forward, leaping obliquely to the right as the right foot advances, leaping obliquely to the left as the left foot advances.
9. **Knee-Raise Run.** Run forward, raising the knees as high as possible on each step. Swing arms vigorously.
10. **Hop.** Travel forward by hopping on the left foot. Take long steps. Change to right foot and repeat.

#### CARRIES

Before starting the exercises suggested below, the group should count off in twos and stand in pairs, side by side. In all cases Number 1 carries Number 2 at the signal "Start." At the signal "Change," the men reverse position and 2 carries 1, continuing the same exercise. On the signal "Relax," both resume original positions and walk forward.

1. **Fireman's Carry.** Number 1 places his left arm between the legs of Number 2 so that the crotch of 2 is at shoulder of 1. Number 2 leans forward until he is lying across 1's shoulders. Number 1 straightens up, lifting 2 off the ground. Number 1, using the hand of the arm through 2's crotch, grasps the wrist of 2's arm which is hanging over his shoulder. Retaining this position, 1 runs forward.
2. **Cross Carry.** Number 1, standing in front of 2, leans forward. Number 2 bends forward until he is lying across the middle of 1's back. Number 1 then places one arm around 2's shoulders and straightens up, lifting 2 from

the ground. Retaining this position, 1 runs forward.

3. **Single-shoulder Carry.** Number 1, standing in front of and facing 2, assumes a semi-squatting position. Number 2 leans forward until he is lying across 1's left shoulder. Number 1 clasps his arms around 2's legs and straightens up, lifting 2 from the ground. Retaining this position, 1 runs forward.
4. **Arm Carry.** Number 1, standing beside 2, bends his knees and lifts up 2 by placing one arm below his thighs and the other around the small of his back. Number 2 places his near arm around 1's shoulders and clasps his other hand. Retaining this position, 1 runs forward.

#### SUGGESTIONS FOR RANGER EXERCISES

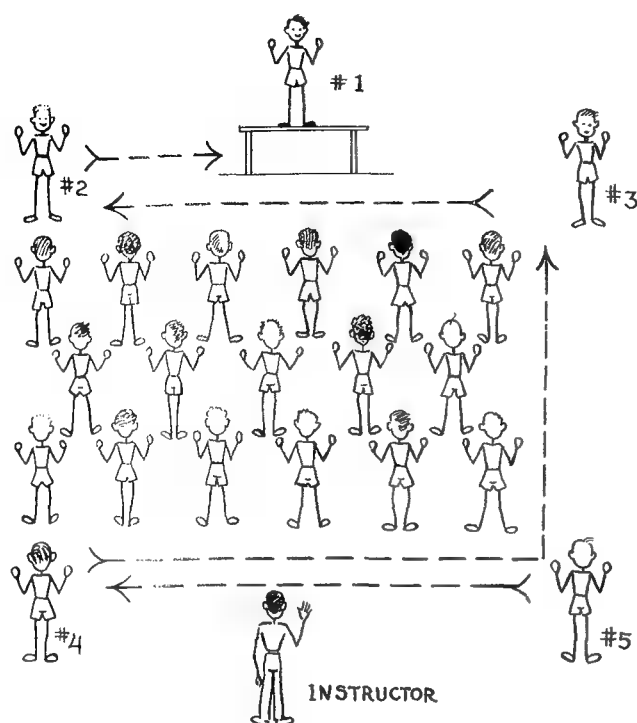
1. Use variety in choice of exercises.
2. Use a maximum of six exercises in a ten-minute period.
3. Choose the easy exercises first.

#### STUDENT LEADERSHIP IN CONDITIONING DRILLS

A well-planned student leadership program is highly desirable in secondary school physical education. Such a program can be enhanced by the establishment of a leaders' club which will be of immeasurable value to both the students and instructor. Through this procedure, individuals can be provided special opportunities to lead a group, thereby giving them valuable experience. This will help broaden the base of the activity program, also.

Following is set forth a suggested leadership program through conditioning drills. Its objectives are

1. To provide for maximum possible experience for students in leadership capacity
2. To train potential leaders capable of conducting groups in conditioning drills
3. To present an efficient and interesting program through proper organization of student leadership activities
4. To inspire students to a higher degree of performance.



**ROTATION CHART FOR STUDENT LEADERS OF CONDITIONING DRILLS AND EXERCISES.** (1) The individual occupying the Number 1 position actually leads the drills. (2) Student leaders advance from positions Number 5 to 4, 4 to 3, 3 to 2, and 2 to 1. (3) Positions 1, 2, and 3 face the class. Numbers 2 and 3 go through the exercises with the class at the leader's command. They reverse positions from left to right, as the case may be, as they face the group. (4) Positions Number 4 and 5 face the leader, but stand several yards to the rear of the extreme left and right students in the rear line. The instructor faces the leader.

Through conditioning drills I and II, students will soon learn the exercises and the complete drills. By determining in advance the number of times the exercise will be repeated, the instructor can make it fairly simple for the student leader to take over the class. For example, when the student leader takes the class ready to start Conditioning Drill I, he would give the class the command "At ease," and state that they will go through Conditioning Drill I. He then would call them to "Attention," announce "Straddle Hop—ten series," then "In cadence—EXERCISE," counting in cadence "1 2 3 4, 2 2 3 4, 3 2 3 4, etc.," until ten exercises in series are completed.

Student leaders should be selected and rotated so that as many as possible have an opportunity to lead the group in this particular phase of the program. The accompanying chart sets forth one plan of utilizing five student leaders at one time, rotating them in order. The individual who occupies the Number 1 position, which is that of directing the drills, does so for a minimum of several periods, and preferably for one or two weeks. By occupying positions 2, 3, 4, and 5 while waiting for their turns to lead, the other student leaders will learn their responsibilities before occupying the position of Number 1.

Further details should be taught to student assistants by instructors as they wish.

## II. HIKING AND RUNNING ACTIVITIES

### A. HIKING

Hiking is brisk walking for long distances. Three to five miles is recommended for beginners. Rest periods should be few and brief. Students should be encouraged to organize hiking clubs, after-school and week-end hikes, and all kinds of special events which involve considerable hiking. It is sometimes possible to find a faculty member who is enthusiastic enough about hiking to assume leadership throughout the school year.

### B. TRACK AND FIELD

Track and field events provide exceptional opportunities for boys to participate in dashes to develop speed, distance runs to develop endurance, and field events to improve skill and agility. Objectives of these sports parallel those previously listed for other activities, but with added emphasis on individual physical perfection, conditioning for co-ordination, flexibility, speed, stamina, endurance, and the will to win.

In California, track and field events are among the finest high school sports because of sustained ideal weather conditions. They afford almost any boy the opportunity to excel in some event, provided conditioning and instruction is begun early and the student has frequent chances to pit his efforts against others and to measure his progress against that of others or against his own previous record.

It is not impossible for high schools to develop squads of from 100 to 200 track candidates for the school teams. It is a sad fact that some schools are using the same resources, facilities, instructional time, and energy on a school team of from 15 to 20 boys that could offer opportunity to many more. Track offers one of the finest opportunities for class instruction, class participation, intramural competition, and interscholastic sport. The wise coach and teacher will take advantage of the fact that track and field sports lend themselves particularly well to testing, to motivation through progress charts, to visual education, and to establishment of standards for all grade levels, with results that can be easily seen and measured.

Composite or team track meets are highly recommended. In these, individual places are not given prominence. The first three or more contestants from each school or team are equally important in the final outcome, as their combined time, distance, or height is totalled to obtain a team record. Thus, in an interschool dual meet, only a first and second place is awarded, determined by these combined scores.

#### SAFETY IN TRACK AND FIELD—SOME RECOMMENDATIONS

1. No boy should be allowed to compete in intramural or interscholastic track events without sufficient precompetitive training.
2. Spectators and nonperformers must be kept away from throwing areas, where injury hazard is great.
3. Either spiked track shoes should be provided for all, or none whatever should be permitted.
4. Unsupervised use of weights, javelins, poles, hurdles, and starting gun should be prohibited.
5. Equipment should be constantly checked and properly maintained. Broken or splintered

crossbars, hurdle pieces, and standards should be replaced. Items should be kept clean and painted. Finish yarn should be soft and weak (easily broken). Pit edges should be safe (never concrete). Pits should be kept clean and soft and well filled. Runways and lanes should be free of pits, cups, holes, and irregularities. Starting blocks should be used to eliminate digging holes in the track.

6. For class and intramural use, aluminum or metal vaulting poles should be substituted for the often used older bamboo poles.
7. The shot should be put and not thrown, to prevent injuries to hand, wrist, and arm.
8. Before intensive competition is permitted, each boy should have a medical examination; use of anti-tetanus vaccine is recommended.
9. Every boy must be taught the great need for adequate warm-up before all-out exertion in any event at any time.

#### MOTIVATION IN TRACK AND FIELD

One of the finest motivating devices observed in California to increase interest and participation in track and field events is the "track bump board," originated and developed at Stockton High School by Kenny Rogers. It is equally effective for use in class instruction and for stimulating intramural or interscholastic participation.

The bump board is a board, painted and lettered and mounted on the gymnasium wall, that has spaces for entering records in all usual track and field events. It may include special events, such as 50- and 75-yard dashes, standing broad jump, pull-ups, and baseball throw. The name of an event is lettered at the ends of each horizontal column. Arranged vertically are six columns for each class in the school. As each new record is established, for any class and for any event, from first to sixth place, the result is entered on the board. Recognition is thus given to six levels of achievement, instead of to the top record holder only. Any boy may request the privilege of competing for a record whenever he feels ready to do so; he may be tested by any one of the physical education instructors. This device has proved to be a great stimulant to constant achievement by hundreds of boys in schools where it has been used.

The high school physical education instructor should take an interested part in organizing a high school honorary athletic club (Junior Sigma Delta Psi). Membership is predicated on achievement, and great interest can be developed among the boys in their desire to improve and excel in all-round physical ability.

### C. RUNNING

Running develops endurance, and some forms suggested here develop agility and specific skills in getting over or around obstacles. Track events have previously been discussed, and only general suggestions are included in this section. Before students are permitted to run longer distances several weeks of preliminary training should be required.

Training in long-distance running should be preceded by a medical examination by a qualified physician. The Pulse Rate of Recovery test should be given before the training period begins. After one week of training, the test should be given again. Unless the second test shows that the student's pulse returns to normal more quickly than at the time of the first test, showing that the cardiovascular system is responding to training, advice of a qualified physician should be secured before the training program is continued. The training of younger boys should be supervised with special care to prevent overstrain.

In general, only starts, short bursts of speed, and jogging on the grass should be permitted during the preliminary training period. In no instance should students be permitted to run 100 yards at top speed before the end of the second week. In the 440-yard and 880-yard runs, if the full distance is covered, only the first half should be run at top speed and the second half jogged.

1. **Road Work.** Road work is a combination of hiking and running to develop the ability to cover long distances in the shortest possible time. The starting distance should be from three to five miles. The hike should be a brisk walk, interspersed with running (not jogging).

There should be no rest periods. When beginning road work the period of hiking will

be long and of running short. With increased practice, the running time will increase as the hiking decreases. At each practice the distance should be covered in less time, and running periods should be gradually increased until boys are able to cover eight to ten miles in fast time.

2. **Cross-country Running.** The course for cross-country running should be over hills, through woods, across brooks, over open fields or parks and golf courses, *not* on city streets or highways. This sport has the value of permitting participation by an unlimited number. It is advisable to set up two or three courses of varying length and use permanent markers. This permits runs of different distances from time to time. More important, it provides a means of testing. Charts can be developed for each course, after repeated timing of a large number of runners, setting up goals. Scales for scoring performance, based upon California standards already in use, may be used.<sup>1</sup> Posting of tested achievement scores will assist in motivation.

There are many types of intramural cross-country events which are interesting to the nonvarsity athlete, such as an annual Turkey Race, Cake Race, Duck Trot, and similar special events. Whether the event is a class activity, or a part of the intramural or varsity program, the following suggestions to the runner are important.

- a. Warm up before the practice jaunt.
  - b. Wear full-length sweat clothing on cool days.
  - c. Shorten the stride going up hill.
  - d. Breathe through mouth and nose.
  - e. Use an easy, relaxed stride.
  - f. After the run, continue to walk a short distance in the fresh air before using the shower. Always taper off.
3. **Obstacle Course Running.** Obstacle course running may be done either indoors or outdoors. Each school may set up its own course, using any available series of obstacles.

<sup>1</sup> *The California Physical Fitness Pentathlon.* Bulletin of the California State Department of Education, Vol. XI, No. 8, November, 1942, p. 11.

Indoors, the horse, parallel bars, buck, benches, ropes, mats, and ladders all may be employed. It is advisable to mark floor spots for indoor obstacles so that each item can be set up in identical places for all periods. This is particularly important when standards for each age group are established and constant tests made. Outdoors, the obstacles may be hurdles, fences, ditches, walls, posts, overhead hand walking pipes and ropes.

There are differences of opinion on the advisability of construction, maintenance, and use of an obstacle course on school premises. If it is carefully planned to include exercises that develop all parts of the musculature, has two and possibly three graduated duplicate obstacles at each station to provide for various age and achievement levels, and is properly placed to permit supervision and maintenance, the obstacle course can be a valuable device in developing real physical fitness and for self-testing. Installations should not interfere with diamond, field, and court game areas.

#### SAFETY PRECAUTIONS FOR THE OBSTACLE COURSE

1. All obstacles should be painted periodically, and splinters, rough edges, and other injury hazards removed.



Ropes may be part of the obstacle course.



Obstacles may be graduated in size or in difficulty for different groups of boys.

2. Students should be taken in squads to each obstacle and carefully instructed in correct techniques and fundamentals in order to avoid injury due to trial and error methods. Practice should then follow in slow motion, unit by unit, until a degree of mastery is achieved.
3. Students should not be allowed to run in crowded heats, with competition constantly stressed.
4. Landing areas should be prepared to cushion high drops and falls without injury. Proper falling, accompanied by application of tumbling techniques when necessary, should be taught.
5. Equipment should be checked periodically for weaknesses and flaws; defective and weak ropes and boards should be replaced.

#### D. RELAYS

Relay races add interest and competition to the program as well as providing vigorous exercise. Teams should number eight members or less so that few will be standing idle. The distances in the relays should be long enough to require the players to put forth sustained and vigorous effort. The distances involved in the different relays may be progressively increased as the boys improve in physical condition.



Rather than to disqualify a team when infractions occur, such as running out to meet the returning runner, it is better to charge a foul and add the number of fouls to the team's order of finish.

#### FORMATIONS FOR RELAYS

There are various types of relays, requiring different formations. Some of these follow:

- a. **Lane or File.** Teams in parallel columns or files behind a starting point. Each player runs to a turning point established some distance away and then back to the starting point, where he touches off the next runner. Race continues until all in one team have run.
- b. **Shuttle.** Teams in two squads (A and B), each squad in file formation facing the other, some distance apart. First player of Squad A runs to and touches off second player (Squad B). This player runs and touches off third player (Squad A). Race continues until all in both squads of one team have run.
- c. **Circle.** Teams form in a circle or circles for games such as Dodge Ball.
- d. **Obstacle.** Each runner must go over, under, or through some obstacle placed in his course, or run in some prescribed manner. The leader uses ingenuity in providing all kinds of obstacles, such as running, jumping, zigzag or maze running, straddling, climbing, tumbling, vaulting, and mixtures of dribbling, ball handling, shooting and passing.

- e. **Miscellaneous.** Other formations worked out by class or teacher. In partner relays two players of a team run simultaneously, or three may participate, as in the Wheelbarrow Race. In stunt relays the student must perform a stunt before finishing his run.

Of these the most common formation is the lane, with the team in a file or column, each runner performing in turn as in the following:

1. **Crab Walk.** Players support themselves on hands and feet, facing upward, with hips raised.
2. **Monkey Walk.** Players run with hands and feet on floor, monkey fashion.
3. **Frog Walk.** Hands and feet on floor, players advance by alternately placing hands forward and bringing feet up to them, frog fashion.
4. **Sore Toe.** Player grasps shin, holding it in front of him and then hopping.
5. **Lame Dog.** On all fours, players run with one leg lifted off the ground.
6. **Jump Stick.** Players see lots of action, each jumping to avoid a stick carried knee-high through the file.
7. **Leap Frog.** Players bend forward, hands on knees, and last in the file jumps over the others until all have jumped.
8. **Over and Under.** Medicine ball is passed down the column, alternately over the head and under the legs of players.
9. **Man Carry.** Fireman's lift is used and at the turning point the two players change places for return run.

### III. COMBATIVE ACTIVITIES

The activities listed under this title include individual and group contests of strenuous nature and offer many program possibilities as they have tremendous appeal to participants. They are of interest to all ages and are adaptable to large and small groups. A minimum of equipment and preparation is required. These activities assist in developing the ability to react instantly with a

maximum of energy for the purpose of overcoming an opponent.

The objectives of combative activities are

1. To develop aggressiveness in personal combat
2. To develop initiative in personal combat
3. To develop resourcefulness in personal combat
4. To develop quick reaction with maximum energy

### A. HAND-TO-HAND STUNTS

In hand-to-hand combat, victory is achieved usually comes in the first few seconds. Practice in the following exercises will assist in developing habits of aggressiveness, and quick and adaptive thinking will grow from such practice. The following activities are developmental. The class should be arranged in pairs according to size.

1. **Hand Pull.** Grasp hand or hands of opponent and attempt to pull him over to your own position. In grasping hands, each individual should grasp the wrist of the opponent so that there is a double grasp, with heels of hands in contact and with each hand grasping the other's wrist.
2. **Neck Pull.** Grasp back of opponent's neck with one hand. For example, with right foot forward, grasp opponent's neck with right hand. Attempt to pull opponent out of position.
3. **Rooster Fight.** Hop on left foot with arms folded across the chest. Use the right shoulder and right side of chest to butt opponent. The object is to make the opponent lose his balance and fall or unfold his arms or touch his free foot to the ground.
4. **Hand Wrestling.** Grasp opponent's right (or left) hand. Right foot is forward. Attempt by pulling, pushing, by a sideward movement or other maneuvering to force opponent to move one or both feet from original position. Change hands after each bout.
5. **Mounted Wrestling.** Two contestants against two others, fighting in pairs. The "rider" sits astride the neck of the "horse" with his lower legs under the "horse's" arms and his feet clasped behind the "horse's" back. Try to unseat the rider or to cause him to touch the ground. If both pairs fall at the same time, the rider touching the ground first is the loser.
6. **Indian Wrestling.** Lie on ground, side by side with opponent but with head in the opposite direction. Link right elbows. Upon signal, raise right leg far enough to engage the heel

of the opponent, attempting to roll him over backwards. After three bouts, change legs.

To begin the contest, the players usually raise the legs three times rhythmically and the third time engage opponent's heel.

### B. COMBATIVE CONTESTS

Following are listed a number of combative contests with an indication of starting positions and general objectives. Leaders may work out variations of these suggestions.

1. **American Wrestle.** Stand apart, secure opponent about waist from behind.
2. **Back to Back Lift.** Lock elbows with opponent and lift him off the floor.
3. **Back to Back Push.** Lock elbows with opponent and push opponent over base line.
4. **Back to Back Tug.** Lock elbows with opponent, get him over your line.
5. **Drake Fight.** Grasp own ankles, force opponent off balance.
6. **Drag Out of the Gap.** Stand twenty feet from opponent, force him over his base line.
7. **Elbow Struggle.** Lock elbows with opponent, force back of his hand to table or floor.
8. **Hand Push.** Stand face to face, toe to toe, make opponent lose balance.
9. **Knee Slap.** Begin in standing position, slap opponent's knee.
10. **Lame Duck Fight.** One foot off floor, overthrow opponent, using two hands.
11. **Lifting Contest.** Using arm clasp, lift opponent from floor.
12. **Line Pull.** With a ten-foot line on the floor, use right arm grasp and pull opponent across the line.
13. **Linked Finger Struggle.** Link fingers and force opponent to floor.
14. **Locked Knees Struggle.** Standing, inside arm across chest of opponent, make opponent lose balance.
15. **Modified Catch-as-catch-can Wrestling.** Standing or kneeling, touch opponent's back to floor.
16. **One-Leg Combat.** Standing on one leg, make opponent lose balance.

17. **One-Man Push.** Hands on opponent's shoulders, push opponent across his base line.
18. **One-Leg Tug.** Using one foot, handclasp, draw opponent across line.
19. **Roman Wrestle.** Two partners form horse and rider, force other rider off or overthrow horse.
20. **Stepping on Toes.** Standing, step on opponent's toes.
21. **Stork Wrestling.** Stand on one foot, clasp opponent's hand, force opponent off balance.

### C. BOXING

In addition to the common objectives noted in other sections, such as developing endurance, courage, body tonus, poise, and strength, boxing makes positive contributions to emotional adjustments, satisfaction of the competitive spirit, and increasing self-confidence.

Boxing as an activity is valuable at any time and is doubly so in a period when physical fitness must be developed quickly. Fine conditioning is indispensable to success in this sport. Interscholastic boxing competition is not recommended; and no type of highly competitive boxing should be encouraged. It is true that, when carelessly administered, boxing can result in accidents. This activity must always be conducted under controlled conditions. The objective is definitely to teach the skills without liability of injury to the participants.

#### 1. Warm-up and Conditioning Exercises.

No sport requires more exacting warm-up and more adequate and prolonged pre-conditioning than boxing. Some exercises for conditioning are

Stretching exercises  
Shadow boxing; bag punching  
Abdominal exercises  
Chinning and push-ups  
Rotating neck  
Rope skipping  
Running or road work  
Stationary running  
Inverted bicycling  
Working on light bag

Working on heavy bag

Sit-ups

Sparring, after sufficient fundamentals have been learned.

#### 2. Fundamental Skills. The fundamentals to be stressed are

On guard position

Bent arm punches

Foot work

Jab and hook

Right cross

Defense

Straight punches

Combination blows

Covering up

Side step and pivot

Uppercut

Blocking and clinching

Feinting

Double lock

Counter offensive

Arm encirclement

#### SAFETY IN BOXING—SOME RECOMMENDATIONS

1. All extensive boxing activity should be preceded by a medical examination.
2. For group instruction, the entire area should be mat covered. If in a ring, the mat should be extended at least three feet outside the ropes, which should be cleanly wrapped, with corner turnbuckles padded.
3. Participants should always be evenly matched.
4. Headgear should be worn at all times.
5. Fourteen-ounce gloves are recommended. Hands should be wrapped. Proper instruction should be given on protection of thumbs.
6. Methods of "covering up" should be taught early. Hard hitting should be discouraged until the group is well drilled in defensive methods. Defense generally is more slowly acquired than offense.
7. Amateur boxing rules should be strictly enforced. Bouts should never extend beyond three rounds. One and one-half minute rounds, with two-minute rest periods, are recommended.

8. Bouts should be stopped when even a minor cut or injury is sustained.
9. Blindfold boxing, group elimination, and other such dangerous mass-boxing events should not be tolerated.

#### D. WRESTLING

Wrestling is one of the most valuable forms of combative activity. It can meet a very important need in the preinduction program. Its most evident purpose is to train boys to a high degree of proficiency in hand-to-hand combat. The combat soldier with the most desirable training for his task is a fighting man without his weapons as well as with them; he is confident and he is capable. Every member of the armed services should, if necessary, be able to render the best man of the enemy helpless in a hand-to-hand engagement. Men should possess the additional fighting spirit, ruggedness, assurance, and the courage to face an opponent which is gained through training in wrestling.

Some suggestions are given here for instruction in wrestling fundamentals.

1. **Pulling from Locked Position.** Contestants assume the standing position and each grasps the back of opponent's neck with the left hand and opponent's left elbow with right hand. In this position, each attempts to pull opponent across a line.
2. **Tackling Opponent.** A dives forward suddenly, grabs B with both arms around the knees and draws his knees toward him, pushes with the shoulders, and throws B backward to the ground.
3. **Head and Hip Throw.** A grabs B's right wrist with his left hand and pulls him forward, stepping forward and to the left with his right foot. A then places right arm around B's head, turning his back to B and pulling with left hand and right arm, throws B forward over his hip.

To block this, B pushes A's right hip as he starts to turn, keeping A away from him.

4. **Arm Drag.** A grasps B's right wrist with left hand and quickly seizes B's upper arm with

right hand. A moves quickly to left by putting out his left leg and pulls forward and down upon B's arm. A drops quickly to B's right knee, still pulling B's arm down by A's right side. This will put B down to his chest temporarily. A then climbs upon B's back by pivoting on right knee and reaching over with left arm.

5. **Chest to Chest.** Opponents stand, chests together, left arm over opponent's right shoulder, right arm under opponent's left arm, grasping hands behind the back. Each attempts to lift opponent from the ground and/or throw him to the ground. Holds may be changed after the bout has started.
6. **Other Holds and Maneuvers.** The following holds may also be stressed:  
 Take down or go behind  
 Blocks for all holds  
 Front head lock and arm bar  
 Head and hip lock or cross throw  
 Boston crab or leg split  
 Headlock and trip  
 Figure four scissors  
 Figure four scissors and half nelson  
 Reversals: lock and roll  
 Double wrist lock  
 Half nelson and arm bar  
 Half nelson and crotch hold  
 Reverse nelson and crotch hold  
 Three quarters nelson  
 Leg dive  
 Wing lock  
 Arm lock  
 Head spin  
 Waist hold  
 Escapes  
 Stand-up; sit-out  
 Double wrist ride; wrist and ankle ride  
 Switch  
 Cradle hold  
 Defense maneuvers

#### TEACHING SUGGESTIONS FOR WRESTLING

1. Demonstrate each activity carefully.
2. Train boys to exert minimum effort and to secure advantage of opponent instantly.

3. Train boys to keep cool-headed, because emotional and mental control may be the difference between success and failure in personal combat.
4. Use hand-to-hand combat activities two or three times a week.
5. Begin with less strenuous and progress to more difficult activities.

#### SAFETY IN WRESTLING

A study of accidents in high-school wrestling revealed that the main causes were improper equipment, lack of progressive training, and carelessness.<sup>1</sup> To avoid injuries in wrestling, safety precautions such as the following should be observed:

1. Use recommended equipment: large mats, clean cotton flannel or rubber or plastic mat covers, rubber-soled, lightweight shoes without eyelets, individual headgear, and tights or sweat pants.
2. Always use two-inch mats (without lumps) and have them at a safe distance from walls and obstructions.
3. Do not allow wrestlers to start active work until all safety mats, rubber covers, and other equipment are properly placed.
4. See that proper warm-up always precedes action.
5. Excessive or rapid reduction in weight, or dehydration, should be prohibited.
6. Prohibit wearing of rings and long fingernails.
7. Do not permit malicious punishment. Watch any boy who exhibits sadistic tendencies. Do not concentrate on the instruction of one or two wrestlers while the others "run riot."
8. Treat all minor cuts and abrasions immediately.

## IV. AQUATICS AND WATER SAFETY

Our armed forces have operated under conditions that demand an ability on the part of the individual to handle himself successfully in the water while fully clothed, and to assist others in the water who may be incapacitated. To develop such ability in all youth, the school must have the maximum use of all available school and community swimming facilities. Schools not fortunate enough to have their own pool should survey the community, or nearby communities, for available pools. Transportation to the pool must be arranged. This phase of physical education is unquestionably at top priority during the present time. Many California high schools have made swimming proficiency a requirement for graduation. This trend is desirable.

#### SKILLS DEVELOPED IN AN AQUATICS PROGRAM

The objectives of aquatics are to develop the following abilities:

1. To stay afloat for a long period of time. The standards of time should be set up and classified for beginning, intermediate, and advanced swimmers.
2. To submerge and swim under water. Suitable standards should again be set.
3. To swim long distances without exhaustion, using a combination of strokes. Distance standards should be established for the three classes of swimmers.
4. To enter the water without submerging.
5. To become accustomed to staying afloat when fully clothed.
6. To render assistance to another person in water.
7. To perform acceptably in motor tests of swimming ability.

#### TEACHING SUGGESTIONS FOR AQUATICS

1. Classes should not exceed 45 boys, and preferably should be less.
2. Classes should be subdivided into small units.
3. Capable student leaders should be utilized.

<sup>1</sup> Claude C. Reeck, "Abstract: A National Study of Incidence of Accidents in High School Wrestling, 1937-1938," *Research Quarterly*, X (March, 1939), 72-74.



Swimming instruction has top priority in the physical fitness program. Many schools have double or triple pools so that the shallow pool can be used in teaching beginners.

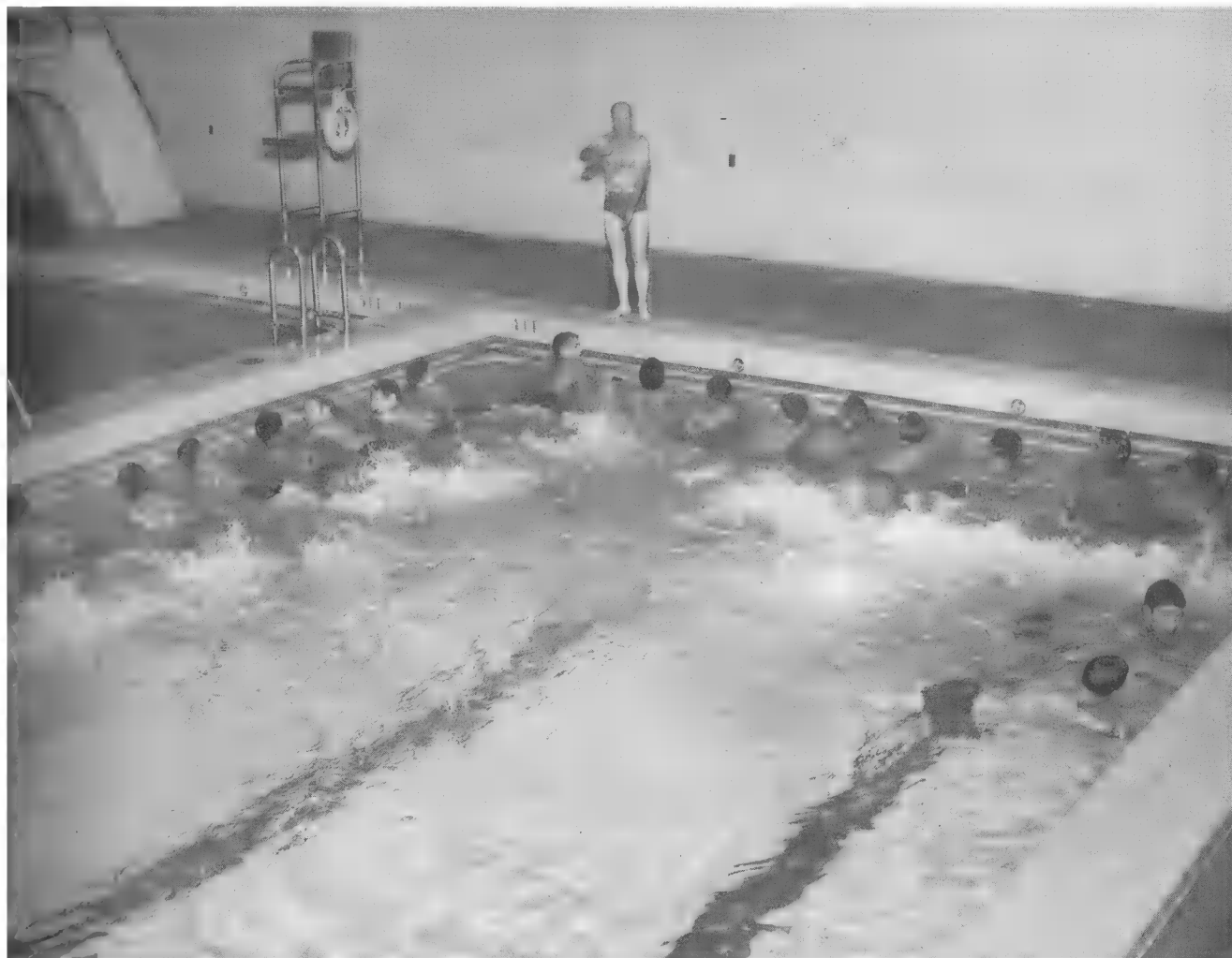
4. All boys should be tested and classified for instruction in homogeneous groups, according to proficiency.
  5. Daily schedules should be carefully planned so that all phases of basic instruction can be covered during the course.
1. **Floating.** *Manual*, p. 59.
  2. **Breathing and Breath Holding.** *Ibid.*, pp. 19-20, 54.
  3. **Sculling.** *Ibid.*, p. 69.
  4. **Treading Water.** *Ibid.*, p. 149.

#### A. STAYING AFLOAT

All boys should be taught to stay afloat. Some of the exercises used to achieve this are described in the American Red Cross *Swimming and Diving Manual*.

#### B. FUNDAMENTAL STROKES

1. **Side Stroke.** Valuable in lifesaving and in swimming with equipment. War Department Basic Field Manual, FM 21-20, *Physical Training*, November, 1950.



Certain fundamental swimming strokes must be taught. These include the side stroke, breast stroke, back stroke, trudgen, and crawl.

2. **Breast Stroke.** Useful in reconnaissance and lifesaving. American Red Cross *Swimming and Diving Manual*, pp. 85, 95, 104.
3. **Back Stroke.** An excellent stroke for a tired swimmer and for swimming with equipment or clothing. *Ibid.*, p. 100.
4. **Trudgen.** A powerful and valuable stroke for distance swimming. *Ibid.*, p. 127.
5. **Crawl.** Popular stroke, deserving some instructional time. Gives valuable training in timing and rhythm.

### C. ENTERING THE WATER

The term "entering the water" is used, rather than "diving," to emphasize the needs of the military to develop a ready ability to jump into the water, with and without clothing, feet first or head first, or to enter without submerging in order to keep equipment dry.

### D. LIFESAVING

The teacher of swimming must be familiar with lifesaving practices, and these practices should be taught to all boys as soon as they develop some





Safety in the water may be taught by the use of an inflated pillow case as a "floater." Students must learn to swim while fully dressed.

swimming proficiency. The specific information and suggestions given in the American Red Cross *Swimming and Diving Manual* may be used for instructional practice.

The following activities should be covered:

1. **Endurance Swimming.** Developed by the use of fundamental strokes over long distances, and by the use of trudgen and crawl.
2. **Swimming under Water.** Valuable in reconnaissance and escaping hazards. Boys should be able to swim not less than twenty feet under water fully clothed (shoes, shirt, and trousers).
3. **Swimming Fully Clothed.** Boys should practice all of the fundamental strokes while fully clothed.

#### SAFETY IN AQUATICS—SOME RECOMMENDATIONS

1. Wherever possible, use the "buddy" system. This provides that boys be paired and required to stay near each other in the water. Adequate check-in and check-out is essential.
2. Do not tolerate running and chasing about the pool decks.
3. Keep complete safety equipment and lifesaving gear available and handy. Post pool rules, give safety instruction, stress safety points, and enforce rules.
4. See that the pool is locked when supervision is not available. Allow no one to go into the pool alone.

## V. GYMNASTICS AND TUMBLING

The program of gymnastics and tumbling contributes readily and easily to improved muscle tone and body development. When properly conducted, gymnastics are highly beneficial for the development of arm, shoulder girdle, and abdominal muscles. As most American sports are running games, the lower limbs of our youth are usually fairly well developed. Gymnastics, including apparatus exercises and rope climbing, will assist in developing the upper body.

The activities that follow are based on the need for body conditioning, particularly the development of the musculature of the arm, shoulder girdle, and abdominal region.

The objectives of gymnastics and tumbling are

1. To develop endurance, strength, flexibility, agility, poise, and self-confidence
2. To develop specific skills in handling the body in any situation.

### FORMATION FOR GYMNASTICS AND TUMBLING

The class arrangement is dependent upon the size of the class and of the gymnasium, and upon the apparatus available. The following are guides for efficient organization.



Military landing nets are used in teaching water safety.

1. Divide the class into groups according to facilities.
2. Keep the groups small to provide maximum participation.
3. Arrange the class and apparatus so that (a) those awaiting their turns may see the performer, and (b) safe and easy access to and from the apparatus is provided.

The first three minutes of the class will often set the tempo for the entire period. As one instructor points out, control is important:

"Everyone help get the apparatus out." From that moment on the class is disorganized. Better, from an organized situation, such as a roll-call formation, say, "First six men three paces forward—*March*. The first two let down the ropes and the last four get two big mats and place under the ropes. *Fall out*. The next six men three paces forward—*March*. Get three big mats and place them . . ." Not only is control maintained, but a gradual stream of students is handling the apparatus and mats instead of the entire class simultaneously. Clear the floor in the same manner, and *moreover* have the class fall in and be dismissed to the showers from a controlled situation.<sup>1</sup>

### A. MARCHING AND COMMANDS

The role of marching and commands in physical education as suggested here needs some clarification. It is not intended that the physical education period be completely regimented and routinized in a formal and military manner. Certain informal and natural procedures which stamp the activity as particularly enjoyable need not be eliminated. The teaching of marching tactics, taking a substantial time allotment, is not suggested. Marching techniques can be attained after the student leaves school and is inducted into the armed services. There the work will be intensive and thorough.

It is important, however, that the student be familiar through practice with basic marching

<sup>1</sup> From material presented to the Men's Secondary Workshop of the California Association for Health, Physical Education, and Recreation at California State Polytechnic College, 1950, by Jerrold Russom, Supervisor of Physical Education, Los Angeles Public Schools.

reactions. The principal role of precision in the class procedure is to insure efficiency in movement of groups and squads and use of apparatus and gymnasium equipment, in class assembly and dismissal, in speedy roll taking, in readiness for instruction, and to familiarize the student with physical training procedures followed in the armed services.

It is suggested that teaching personnel not having had military experience give careful study to proper techniques and commands given in the War Department Basic Field Manual FM 22-5, *Infantry Drill Regulations*, August 4, 1941. It is rather obvious that basic movement commands in the physical education situation should not be diversely different from those of the military. The following commands and movements should become so familiar to secondary school boys that response is automatic:

Position of attention	Mark time
Dress (alignment)	Facings
Side step	Quick time
At ease	Double time
Halt	

All fundamental marchings which involve group movements

## B. APPARATUS ACTIVITIES

Exercise on apparatus is especially valuable in developing strength, agility, flexibility, and endurance. Only a few of the many exercises and skills which contribute to these objectives and only a selection of types of apparatus have been described here. Each instructor is urged to broaden and develop the scope of this phase of the program to the maximum, interweaving it into the fabric of the total combination of activities and skills that comprise the curriculum in physical education.

It is wise to remember that certain body characteristics make tumbling and apparatus work much easier for some than others. A good teacher is infinitely patient in giving instructions as well as observing all the safety precautions.

## 1. Climbing Ropes and Poles<sup>1</sup>

Work on the ropes is extremely important in the fitness program. Arms and shoulder girdle development, often neglected by the bulk of American running games, profit greatly from these activities. A minimum of three climbing ropes should be provided, and six ropes are barely adequate for the normal physical education class.

It is not enough to teach boys to climb ropes. Safety stops to teach the boy perfect confidence and control while in the air must be carefully taught and practiced. One never knows when ability such as rope climbing may save life, particularly in the hazards faced by men in active military duty. The individual should feel at home on ropes, know the safety moves and holds, and be able to move up, down, and across ropes with poise and confidence. There may be a direct utility value in this instruction in addition to conditioning values that are inherent in the activity. Students should be cautioned never to slide down a rope, as severe burns may result.

### THE VERTICAL ROPE

- a. **Hand-over-hand (Ascent).** Grasp rope above head; maintain tight grip; head close to rope; keep arms flexed; make each "climb" a "one-arm chin"; kick outward in walking motion.
- b. **Foot Clamp (Ascent).** Start with hands overhead; rope passes inside rear knee and over instep; clamp by back of ankle of front foot. By flexing and straightening knees, assist arms in climbing. Hands and feet alternate grip. Release feet sufficiently to allow rope to slide, but do not lose foot contact or control.
- c. **Make-fast (Ascent).** Rope in midline of body, passes between legs, around right calf, and over instep of right foot. Press sole of left foot against rope atop right instep. Alternate arm pull and foot clamp.
- d. **Make-fast and Rest.** Complete make-fast as above. Then extend right leg fully. Hold

<sup>1</sup> Much of the section on rope work was presented by Frank Griffin, Director of Physical Education, Sequoia High School, Redwood City, to the California Physical Education Workshop at San Luis Obispo in 1951.

rope against body with left hand pressed into right armpit. Bring right arm forward, outward, backward, thus obtaining backward traction on rope. Release left hand, place behind back and grasp right wrist. Head erect, chest out. Release by reversing procedure.

- e. **Hand-under-Hand (Descent).** Reverse procedure of hand-over-hand. Minimize leg movement to offset jerk and strain.
- f. **Foot Clamp (Descent).** Descend either by (1) relaxing foot grip, but maintaining foot contact with rope; or (2) flexing knees and alternating grip with hands and feet.
- g. **Stirrup.** Rope passes down side of body, under near foot and over instep of far foot. Open and close distance between feet to control speed of descent.
- h. **Loop Clamp (Safety Measure).** From make-fast position, bend knees and bring rope up from below to clamp position. Clamp ropes by pressing together. Stand or sit in loop. Before releasing, secure firm hold on top end of rope.
- i. **Stand and Seat Mount.** From make-fast position, bend knees and bring rope up from below to clamp position. Straighten knees. Tie rope above, making loop. Stand or sit in loop. Taut line hitch for tie: give the free end of rope two full turns about the taut rope, drawing the wraps firmly and closely together upon the taut rope. Then pass the free end over hitch by passing end through loop thus formed. Wraps and loop must be firm and tight else end will slip on taut line.
- j. **Rocking Chair (Safety Measure).** Swing to an inverted position; clamp rope with legs; bring free end up and under back and across chest, then over shoulder front to rear. Wind rope around body under opposite armpit and tie to taut line. Use similar procedure with loop under both thighs.

#### THE HORIZONTAL ROPE

- a. **Hand-over-Hand.** With a tight grasp, arms flexed at right angles, kick as in walking motion.



Work on the horizontal rope over the water complements swimming and life-saving skills.



Boys should know the safety moves and holds and be able to move up, down, and across ropes with poise and confidence.

- b. **Monkey Crawl.** Hang on all fours, heels resting on rope. Keep knees well out to side. Use same leg as arm while moving (i.e. right arm with right leg).
- c. **Hand Slide.** Hang from rope with arms fully extended. Slide far hand along rope and bring near hand up to it. Repeat procedure, moving across rope.
- d. **Snake Crawl.** Body prone atop rope. Reach well forward with tight grasp. Instep of one foot atop rope and close to buttocks. Other leg hangs, aiding balance. Press down on instep atop rope; straighten leg and lift body upward and forward, timing with arm pull.
- e. **Front Pull Over.** Grasp rope with reverse grasp, thumbs around rope. Pull up as in chinning. Bring hips upward to contact rope. As feet are lifted over rope, throw head back. Arch back slightly as arms are straightened. Upon circling rope, come to hand-stand. To release, push slightly back from rope and descend slowly. As proficiency develops, substitute ordinary or forward grasp.

## 2. Parallel Bars (Low or High)

The parallel bars is an excellent piece of equipment because the double balance affords a firm base for the student. Exercises can be performed in all directions and planes, thus making possible more variety of activity than most equipment.

### FROM END OF BARS

- a. Dip while supported on hand
- b. Dip while swinging
- c. Travel forward on hands in support
- d. Side vault left (right); and rear vault left (right)
- e. Swing with upper arm hang
- f. Hand balance
- g. Straddle dismount from hand balance at end of bars
- h. Upper arm stand
- i. Uprise at the back swing
- j. Uprise at the forward swing
- k. One half body turn between the bars

### FROM SIDE OF BARS

- a. Front vault over both bars

- b. Backward upper arm roll
- c. Straddle cut forward
- d. **Elephant Vault.** Cover both bars with a gymnasium mat. From a run, vault over elephant. A spring board may be used to increase height. This is an exercise that requires much more supervision for safety than is often presumed. Plan carefully.



A piece of apparatus that is becoming popular is the trampoline, an excellent device for developing poise, flexibility, and balance.

### RECOMMENDATIONS FOR USE OF PARALLEL BARS

- 1. Bars should be set as close together and as low as possible.
- 2. The student must be taught to retain his grasp upon the apparatus until dismount is concluded.
- 3. Mats should completely cover apparatus base and floor area to a minimum distance of five feet from the bars.
- 4. Most students will be unable to support themselves adequately in the simple cross-support position, and swinging in this position is hazardous.
- 5. During the elementary stages it is advisable for two boys to work simultaneously, using both ends of the bars.
- 6. Spotting is usually done from the dismount side by grasping wrist and upper arm, although the chest presents the best single area for giving assistance.

### 3. Horizontal Bar (Chinning Bar)

This apparatus is extremely valuable in accustoming the student to a 360° rotation in developing hand, wrist, and arm strength, and in promoting refinements of balance and timing.

#### HIGH BAR (BEYOND REACH)

- Chin from a hang. Any grip.
- Hang. Raise knees.
- Hang. Raise legs.
- Hang. Swing feet forward and upward over the bar to a support.

#### LOW BAR (SHOULDER HIGH)

- Side vault
- Front vault
- Bar vault for height
- Rear vault

#### RECOMMENDATIONS FOR USE OF HORIZONTAL BARS

- Keep low bar at chest or shoulder height (4'3" to 4'9").
- Keep bar clean with fine emery paper and dry towel.
- Keep guy wires tight but not tense.
- Caution students always to keep firm grasp on bar. Even when falling, students who keep a grasp on the bar will have head and arms out of danger.
- Boys 10-16 usually have poor or mediocre shoulder girdle and grip development, so proceed cautiously.
- On many of the simple exercises, have two students work simultaneously side by side.

### 4. Horse and Buck

Vaulting exercises have many excellent values, but they are of primary importance because of the use of the hands and arms for support of the moving body. They are short, easy, and interesting so that the student quickly gains a feeling of achievement in the activity.

- Mounts and dismounts
- Side vault, left (right)
- Front vault, left (right)
- Vault for height (raise apparatus)
- Straddle vault

#### RECOMMENDATIONS FOR VAULTING

- Vaulting activities must be supervised or "spotted" in the early learning stages, usually from the far side and facing the apparatus.
- Additional height increases difficulty, as does the combining of two or more moves into an exercise.
- A minimum of three stations of activity should be provided. The side horse and low horizontal bar are additional possibilities for vaulting situations.
- Beginners should have tumbling experience prior to vaulting instruction.
- Difficulty develops by easy stages; hence correct form and technique should be the paramount considerations in vaulting activities.
- Students should be taught to retain hand contact with apparatus as long as possible.

### 5. Stall Bars

- From a hang, facing bars, chinning
- From a hang, back to bars, knee raising, leg raising
- Sitting on the floor or on a bench, feet fixed between rungs, trunk lowering and raising (sit-up)

### 6. Flying Rings

- Hang and chin
- Swing and pull up at end of swings
- Hang or swing, raise knees
- Hang or swing, raise legs
- Cut off

### 7. Horizontal Ladders

The following exercises are performed while student grips rounds or beams.

- Chin (pull-ups)
- Travel forward
- Travel sideward
- Hang, raise knees
- Hang, raise legs

### 8. Trampoline

An excellent piece of apparatus becoming increasingly popular to both participant and spectator is the trampoline. It is a wonderful device



Tumbling makes a great contribution to the development of the body. The instructor will probably spend as much time on class activity in tumbling as in all the rest of the gymnastic activities combined.

for developing poise, flexibility, balance, agility, timing, and general body tonus. It is recommended that the instructor use one of the latest texts on trampoline instruction as a guide. All recommended safety precautions should be used. Boys, especially novices, should not be allowed to have access to the trampoline without supervision, as serious accidents are possible. It is also desirable to have all metal edges and springs covered with pads at all times.

### 9. Peg Board

An excellent device originating in California is the peg board.<sup>1</sup> This apparatus is easily constructed in the school shops and offers one of the best pieces of equipment for conditioning exercises known today.

The peg board should be mounted on a wall, either inside the gymnasium or outside, in a fixed position. It should be firmly fastened a few inches

from the wall high enough so the boy may hang at arm's length from the pegs in the lower holes and not quite touch the floor.

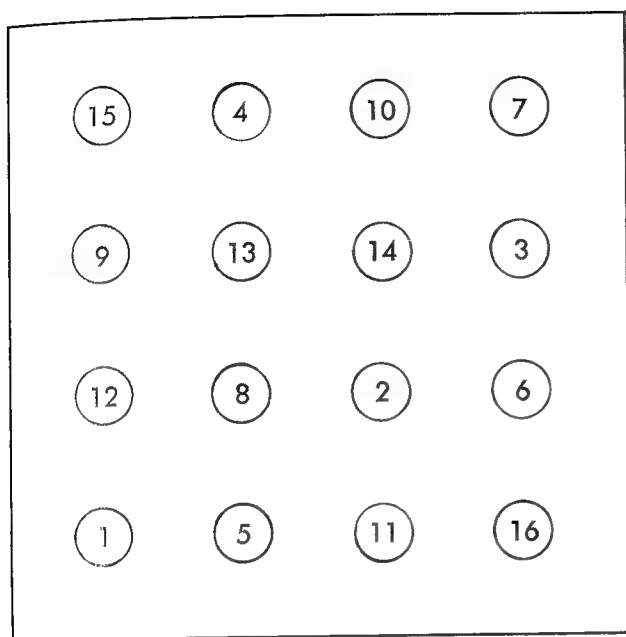
Both board and pegs must be made of good hard wood, possibly oak or ash. The pegs can be turned in the school shop out of the handles of broken baseball bats. Another idea might be to cut holes so that short pieces of pipe with proper bore can be inserted as sleeves, flush with the face of the board. This arrangement would eliminate constant wear on the hole edges.

The peg board is an excellent device for self-testing and setting records for all ages and grade levels. Boys will continually strive to set their mark and beat the record. Besides having the advantage of this strong motivation, the peg board is a device for development of arms and upper shoulder girdle strength and agility.

In the testing procedure the boys start with left forearm over the right, with right-hand peg in hole Number 1, and with left-hand peg in hole Number 5. The initial move is for left hand to move from hole 5 to 2; second move is for right

<sup>1</sup> Originated and developed by Frank Griffin, Director of Physical Education, Sequoia High School, Redwood City.





The peg board is 32 inches square, 2 inches thick, and is set out from the wall  $1\frac{1}{2}$  inches. Each hole is cut with a very slight downward slant to the rear, with a diameter of  $1\frac{5}{8}$  inches. Holes are 8 inches apart, center to center. The pegs are  $1\frac{1}{2}$  inches in diameter,  $8\frac{1}{2}$  inches long, the projecting portion being shaped to fit the hand. Handles of discarded baseball bats may be used in making the pegs. The holes are numbered as in the chart.

hand to move from 1 to 3. The moves then continue, with hands alternating, left hand always to even numbers and right hand always to odd numbers. At no time may both hands be on one peg. Holes 3, 7, and 10 are rated difficult. The switch from hole 15 to hole 16 may be made by reversing body (back to wall).

If going after a record, hook left elbow over peg at hole 16 while changing the peg in hole 15 to hole 1 (right hand). Then continue on through series of moves in order.

#### SUGGESTIONS FOR USE OF APPARATUS

1. Boys should be taught correct grips.
2. Assistance should be provided during practice periods.
3. The height of the apparatus depends on the height of the boys who are to use it and the type of activity they are to engage in.



The use of the peg board helps to develop upper back and shoulder-girdle muscles.

4. Exercises may be made more difficult by raising the apparatus; by increasing the distance between the take-off and the apparatus; and by adding obstacles, such as placing a medicine ball on the end of the horse for vaulting.

### C. TUMBLING

Tumbling is usually as well as or better received by students than any other type of gymnastic activity. Because of the wide scope and great number of skills in tumbling, the instructor will probably spend nearly as much time on class activity in tumbling as in all the rest of the gymnastic activities combined.

The tumbling described here aims to teach the boys how to jump and fall without being hurt, to give them sufficient practice so that they will have a sense of "whereaboutness," and an ability to carry one another without injury. Tumbling

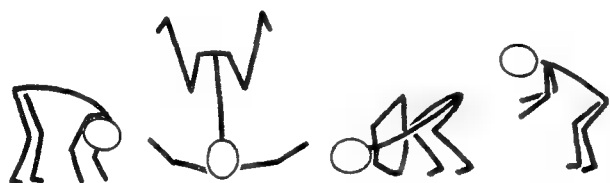
develops the ability to control the body in flight. The stunts suggested here are not intended to be an all-inclusive list.

For tumbling practice, the class should be in small squads so that all will participate. Each squad should stand or sit beside the mat.

1. **Forward Roll.** From a stand, bend forward, bend knees, and place hands on mat. Duck head between legs, roll forward on back of neck and shoulders, grasping knees. Come to a stand.



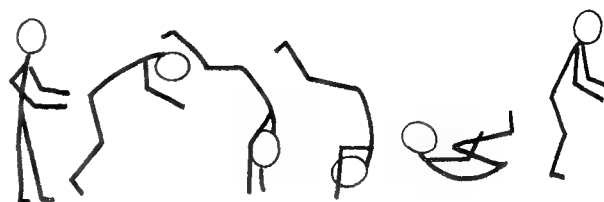
2. **Shoulder Roll.** Turn slightly to the right, place hands on the mat to left. Roll forward on the left shoulder, pulling the left arm in to the chest, rolling on the back and up to the feet.



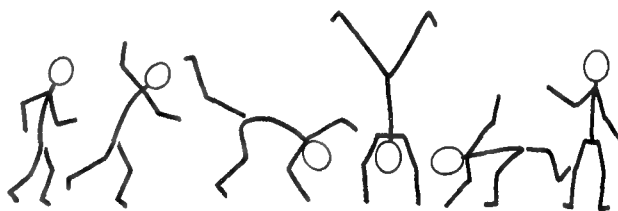
3. **Backward Roll.** From a stand, lean forward, fall backward to a seat, roll backward, placing hands on the mat over the shoulders, and at the same time draw the knees to the chest. Push off with the hands and roll to a stand.



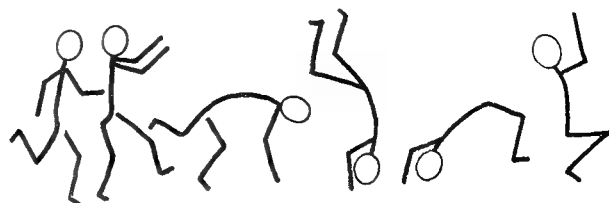
4. **Dive Roll.** Same as forward roll, preceded by a short dive, from a stand. Take off from both feet, stretching arms forward, dive and roll. Do the same from a running start.



5. **Cartwheel.** From a run, make a quarter turn left, placing right foot sideward, right arm upward, throw the weight on the right foot, placing the right hand on the mat. Raise the left leg up, at the same time placing the left hand on the mat, arms and legs spread. Bring the left foot to the mat as the right hand is raised. Follow through to a stand.



6. **Head Spring.** From a run, shift weight onto right foot, raise left leg forward and arms overhead. Swing the left foot down, bend at the waist, swing hands to the mat, placing head on mat between hands. Follow through, swinging right leg overhead, push up with the hands, arch the back, snapping to a stand.



7. **Handspring.** Same as head spring except that the head does not touch the mat.



8. **Tip-up Balance, or Frog Stand.** Stand with heels together and come to a full knee bend, placing hands on floor about 6 inches in front of toes, knees outside of and above the elbows. Rock forward on the hands to a handstand position. This exercise lends itself to the testing program, each boy being timed for balance while he stands without touching any part of the body except hands to the floor.

9. **Supplementary Activities**

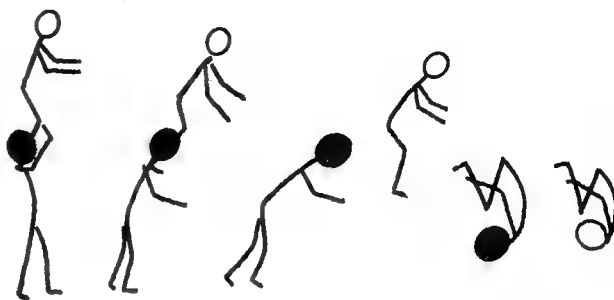
- Jump from heights. Use any available apparatus or platform. Begin at a height of about four feet; increase the height gradually as skill improves. Break the fall by landing on the balls of the feet.
- Jump from heights and roll to a stand, using a forward roll.
- Jump from heights and roll to a stand, using shoulder roll.
- Dive over obstacle and roll to a stand. See dive and roll description.

10. **Companion Stunts and Two-Man Exercises**

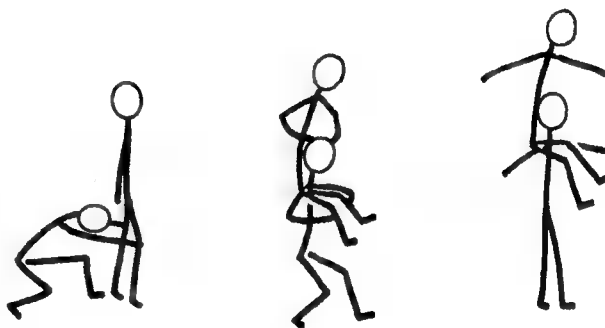
After proficiency develops, there are many companion and team tumbling stunts that challenge boys. Among these are

Back to back over  
Elephant walk  
Flyer  
Thigh stand  
Neck lift  
Triple roll  
Monkey roll (double roll, eskimo roll)  
Elbow lock and roll (wringer)  
Handspring from ankles (belly pinch)  
Handspring from knees

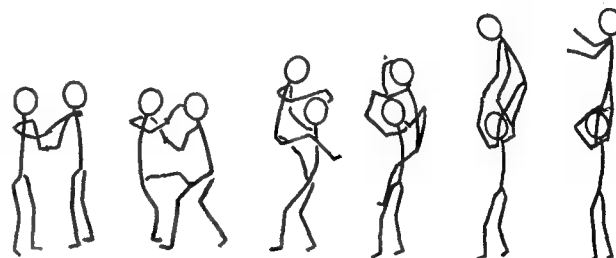
Fall and roll



Sitting on shoulders

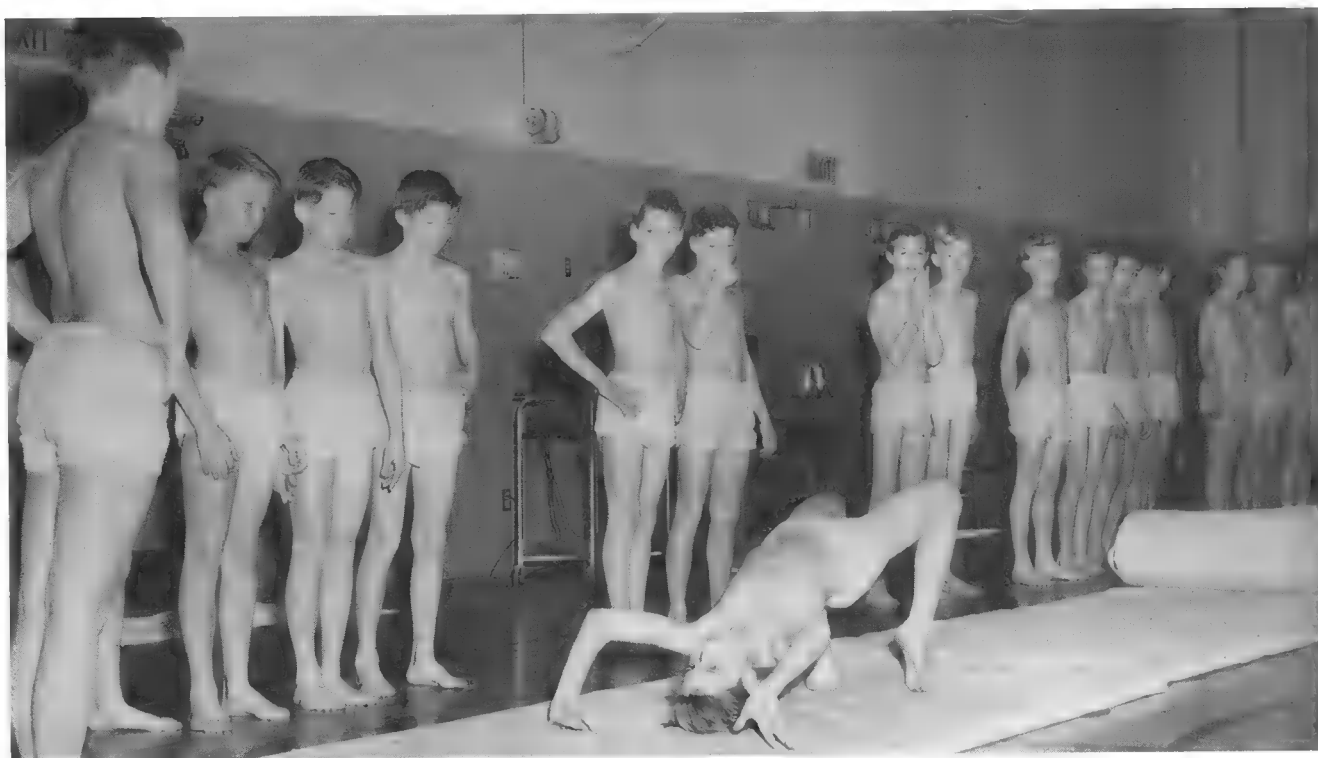


Standing on shoulders



RECOMMENDATIONS FOR TUMBLING

- Class organization should be carefully planned, as in any individual activity. Student should have better than one trial per minute in order to achieve maximum benefit from this activity, particularly in the early stages.
- Keep firmly in mind that the students are learning form and techniques. There is no difficult exercise if preliminary ones have been mastered, yet many students try stunts requiring intricate co-ordinations before they are ready. Such a procedure usually involves more danger, failure, and increased time to develop successful performance.



Good instruction and careful supervision will insure a safe program in gymnastics and apparatus work. Mats must be used in all tumbling classes.

#### SAFETY IN GYMNASTICS AND APPARATUS ACTIVITIES

No other area of physical education activity requires more rigid observance of safety rules than apparatus work and gymnastics. Only good instruction and careful supervision will insure a safe program. One writer says that "correct interpretation or demonstration of a skill by the instructor is as much a safety measure in gymnastics as good mats, nets, and belts."<sup>1</sup> The following safety precautions should be observed:

1. Novices must be warned that good performance makes difficult stunts appear easy and that they must not try these stunts until they are pronounced ready for them by the instructor.
2. All apparatus bases and floor areas underneath and around them should be covered with sufficient mats.
3. Double or triple mats should be used in giving

tumbling instruction to beginners and in using stunts involving height.

4. Hand and ceiling belts should be provided for stunts involving elements of danger.
5. Gymnastic chalk will protect the hands and insure proper grip.
6. Novice students should not be allowed to use apparatus having an injury potential without proper supervision.
7. Spotters should be used, placed in proper position to aid beginners.
8. Every student introduced to rope climbing should be taught the various foot techniques for stopping and braking or slowing the descent. Mats should be under the ropes at all times.
9. The trampoline should be padded on metal frame and spring parts. It should be locked to the wall, or folded and locked when not under supervision. Spotters should always be placed around the trampoline when beginners are instructed.

<sup>1</sup>Don Cash Seaton, *Safety in Sports*. New York: Prentice-Hall, Inc., 1948, p. 253.

## VI. SPORTS AND GAMES

Sports and games contribute to the development of endurance and skill and are of value in developing the will to win, satisfying the combative and competitive spirit. In order to derive maximum benefits from the game program there must be more participation by more youth, more games, longer periods, and more boys in the games. Fundamentals and skills of the various sports should be taught as intensively as the time schedule will permit in advance of competitive participation in class, intramural, extramural, and interscholastic games.

### OBJECTIVES OF SPORTS AND GAMES

1. To develop co-operation (subordination of individual to the good of the group)
2. To develop qualities of leadership and followership
3. To develop courage and aggressiveness
4. To develop initiative, poise, self-confidence, and spirit
5. To achieve fitness through conditioning, which is imperative to proficiency in game skills.

### A. GROUP GAMES

Many group games can be made more vigorous and rugged to meet the objectives of the fitness program. A few games are briefly presented here as examples, together with a supplementary list which can be added to as the ingenuity and background of the instructor dictate.

1. **Bronco Tag** (developed from Three Deep). The players are scattered about in pairs. The boy standing behind wraps his arms around the waist of his partner in front. One chaser and one runner are selected. The chaser attempts to tag the runner. The runner may escape by clasping the waist of the rear boy of any pair. If he succeeds, the front boy in the pair becomes the runner and the chaser pursues him. If the chaser tags the runner before he escapes, the runner becomes the chaser and vice versa. To prevent a runner from escaping, the pairs twist and turn. The front boy is permitted to ward off the runner by using his hands. The

game may be intensified by having several runners and several chasers.

2. **Circle Bombing** (developed from Circle Dodge Ball). The class is divided into two teams, Team A making a circle around Team B. The object is for Team A to hit, with a volleyball, soccer ball, or basketball, as many players of Team B as it can in a given time. Team B players may run, jump, and dodge to avoid being hit but must stay within the circle. At the end of a given time the teams change places. A point is scored for every man hit. This game should be played with 15 to 20 players on a team. The game may be intensified by using two or more balls.
3. **Bull Dozing** (developed from King of the Mountain). Teams A and B form inside a plainly marked circle. The size of the circle depends on the number of players. Each team should be so marked or clothed as to be readily distinguished. The object is to eject an opponent from the ring by pushing, pulling, throwing, or charging. When any part of a player touches the ground on or outside the circle, he is out of the game. At the end of a given period of time, the team with the most players remaining in the circle is the winner. To intensify the game, time may be called when most of the boys have been eliminated.
4. **Pull Away.** A goal line is established at each end of the playing space. Team A lines up along one goal line and Team B lines up across the center of the field facing Team A. At a signal, the players of Team A try to cross safely to the opposite goal. Players of Team B attempt to tag the players of Team A before they reach the goal. When a player is tagged, he becomes a member of the opponent's team. The players who reach the goal wait until a signal is given and then attempt to reach their own goal without being tagged. The game continues until all players are on one team. The game may be intensified by designating the method of tagging or by naming the part of the body to be touched in tagging.

5. **Other Games.** Many other games of rather low organization can be used to give the program greater variety of interest, such as the following. Directions for playing them may be found in various books listed in "Selected References."

Mass soccer	King of the ring
Giant volleyball	Air ball
Pin ball	Soak-out
Push ball	Human tug-of-war
Shower ball	Rope tug-of-war

## B. INDIVIDUAL SPORTS

1. **Skating (Ice and Roller), Skiing, Snowshoeing.** In communities where it is possible to participate in winter sports or where there are skating rinks, all encouragement should be given for instruction and competition in them. In order to develop physical fitness, activities such as these should be engaged in repeatedly and with maximum effort.
2. **Rope Skipping.** Rope skipping, in various forms, is used as a conditioner for many sports and games, especially boxing and wrestling. It may be done individually, in pairs, or by groups. It develops agility and co-ordination, and when practiced beyond the onset of fatigue, it develops endurance.
3. **Rowing.** Schools having access to suitable lakes or rivers might do well to encourage rowing and other water sports, providing boats and facilities so that sustained and periodical use of them might be made.
4. **Camping and Outdoor Activity.** Outdoor education through camping experiences teaches one to live successfully out of doors. It provides the opportunity to learn how to live off the land. It gives urban boys a chance to do things which are not ordinarily possible in a city, such as hiking, trailing, campcraft, water sports, and camp cooking. Camping in groups teaches boys to live successfully together.

The vigorous, healthful atmosphere of camp life must be implemented with all possible op-

portunities for aquatics, water sports, hiking, and other organized physical activity.

Week-end hikes and camping experiences can be organized.

5. **Cycling.** Cycling is valuable in a conditioning program when it emphasizes speed and distance. It develops physical endurance and is of special benefit in strengthening the leg muscles.
6. **Weight Training.** Weight training is one of the most rapid means to development of the body, increase of strength, and correction of defects. It should be emphasized that weight training is the application and use of weights and apparatus for conditioning and perfection of body weaknesses. It should not be confused with weight lifting, which is rapidly becoming a purely competitive phase, whereas weight training is a matter of muscle training.

Weight training should be supplemented by many sports and activities to develop body strength and the desired social and group outcomes. Before using weight training in the physical education program, the instructor should familiarize himself with the safety principles involved.

## C. TEAM GAMES

The following team games have proved themselves through the years to be activities which will develop character traits necessary to meet competition. They will aid in inspiring confidence and will help to develop the will to see a task through to a successful finish.

It is believed inadvisable in this publication to list elementary information regarding team games that are well known to professional workers in the field. Such things as the number of players on a team, the purpose of the game, court sizes, and equipment, as well as the rules of play, are available in official guides to the various major sports.

Some excellent team games which have definite recreational value and spectator interest have been omitted from this list because they do not contribute sufficiently to the major objectives set

up for the physical fitness program. If time permits, such activities may be included at the will of the instructor.

1. **Basketball.** The popularity of boys' basketball is extremely high and its advantages are many. The fast action involved, with the uncertainty of scoring, makes it an extremely interesting game. In the physical education program the possibility of developing teamwork without long practices offers an opportunity to include all students. The game principally involves running, jumping, and marksmanship, and it is considered to be one of the most strenuous team games, offering many opportunities for the development of agility and endurance—especially cardiorespiratory endurance.
2. **Flag Football and Touch Football.** Flag football is rapidly gaining in popularity in California schools as the counterpart of regulation football for use in physical education classes and intramural games. It has one great advantage over touch football in that the excessive roughness due to tagging is eliminated by use of colored flags or cloths inserted in the pant loops. These flags must be pulled out to indicate that play has ended.

Touch football is similar in most ways to regulation football, which is not recommended in the required physical education program due to lack of equipment and possible injury hazards. The elimination of tackling and resultant bruising play has made touch football a much safer game, and has helped place emphasis on wide open forward pass plays. Touch football provides a highly organized team game which involves many of the skills and strategies of football, but does not require the expensive equipment or include many of the dangers involved in the regular game. Its safety will depend upon good officiating.

3. **Soccer.** Soccer is an international game from which Rugby was developed, and is an extremely strenuous activity, involving much leg and foot action. Close team play is needed, and much endurance and conditioning is required for efficient results.
4. **Speedball.** Speedball is a combination of basketball and soccer and has become universal in its play. It has met the demands of a game for the fall of the year which does not require highly specialized playing techniques, which provides for all-round activity, and which is not expensive to conduct.



Life-saving instruction is part of the physical education curriculum in many high schools. As soon as boys have some swimming facility they should be taught life-saving skills.



If properly played, speedball requires more tireless and constant running than any of the sports mentioned. The rapid shifts from one end of the large playing field to the other with the ball movement stamps speedball as one of the best conditioning games. Its basketball features are making it more popular every year.

5. **Volleyball.** Volleyball is a highly competitive game with great recreational value. When game skills, including passing, setting up, driving, spiking, blocking, and serving have been learned, there are few hazards to the game and injury is very rare. The play should be preceded by finger and wrist conditioning and warm-ups. Giant volleyball is a variation that may be used effectively.

6. **Water Polo.** An extremely valuable game to supplement aquatics is water polo. It offers the benefits derived from other contact sports and also develops the highly valuable swimming and watermanship skills that might prove of supreme importance to boys in military service. Boys should not be permitted to play water polo until swimming skills are equal to the demands of the game. Rules must be carefully

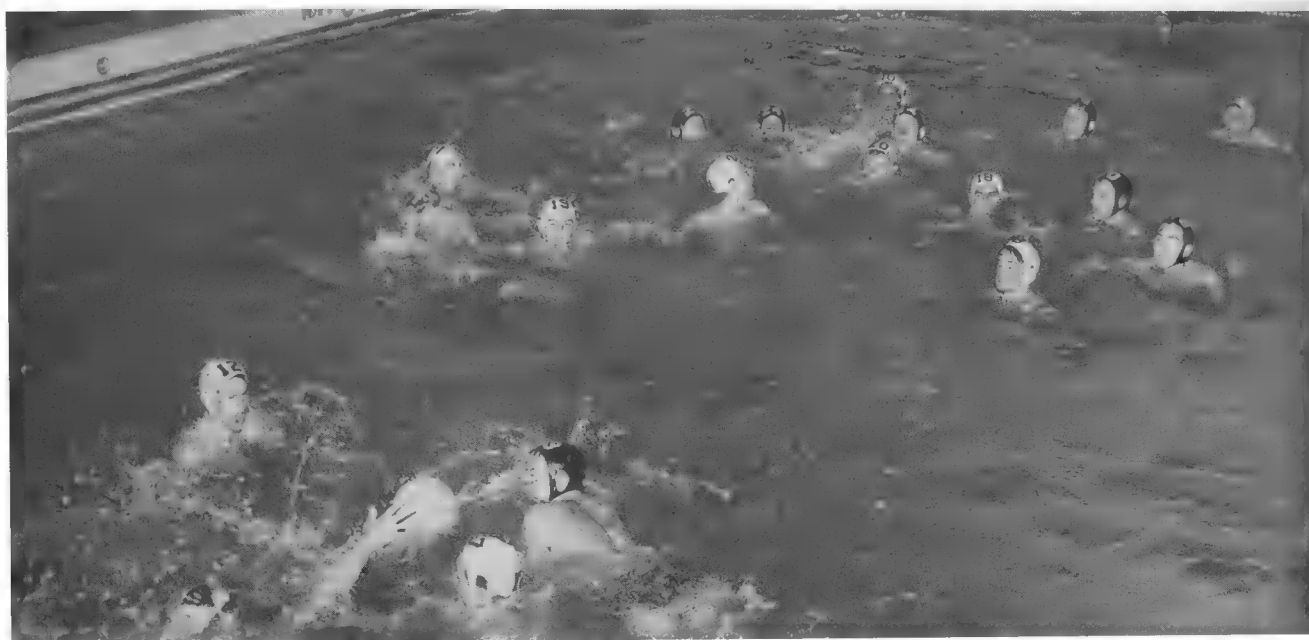
explained and enforced. Playing periods should be short, with replacements frequent, as action is sustained and exhausting.

Water basketball is being substituted for water polo in many schools. Other variations of the game are cage ball, water soccer, and water volleyball.

#### D. DUAL SPORTS

Dual or partner sports are always popular, particularly because of their high carry-over value; such sports as badminton, golf, handball, paddleball, squash, tennis, paddle tennis, and archery can be used not only in youth but can carry over in interest and skill to adulthood. As community recreation is developed and community facilities increase, there is more and more opportunity for participation in sports of this nature in post-school years.

Every physical education program in California secondary schools should include every possible opportunity for skills instruction and subsequent competitive experiences in individual and dual sports through provision of intramural, extramural, corecreational, and interscholastic planning.



An extremely valuable game to supplement the aquatics program is water polo. Teams and positions are indicated by colored and numbered swim caps.

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